

**SANITATION, INC. LANDFILL
LEWISTOWN, MONTANA
License #291
JULY 2011 GROUNDWATER SAMPLING REPORT**

Prepared for:
Barry Damschen Consulting, LLC

Prepared by:
Hydrometrics, Inc.
Consulting Scientists & Engineers 
3020 Bozeman Avenue
Helena, MT 59601

October 2011

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DEPT. OF ENVIRO. QUALITY
WASTE & UNDERGROUND TANK
MANAGEMENT BUREAU



BARRY DAMSCHEN CONSULTING, LLC

Engineering • Solid Waste Management • Grant Administration

October 28, 2011

Mr. Martin Van Oort
Solid Waste Program
Department of Environmental Quality
P. O. Box 200901
Helena, MT. 59620-0901

Dear Martin,

Please find enclosed our copy of the groundwater results for the Spring 2011 sampling event at the Sanitation Inc. landfill. The samples were collected on June 18, 2011.

As indicated in the attached report, there does not appear to be any significant changes in the quality of the groundwater from the last sampling event.

If you have any questions, please do not hesitate to call me.

Very truly yours,
BARRY DAMSCHEN CONSULTING, LLC

Barry E. Damschen, P. E.
Project Manager

Enclosure

C: Sanitation Inc.

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OCT 31 2011

Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau







Hydrometrics, Inc.

consulting scientists and engineers

3020 Bozeman Avenue
Helena, MT 59601
(406) 443-4150
Fax: (406) 443-4155
www.hydrometrics.com

October 28, 2011

Mr. Barry Damschen, P.E.
Barry Damschen Consulting, LLC
P.O. Box 7599
Helena, MT 59604

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OCT 31 2011

Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

RE: July 2011 Groundwater Monitoring Results
Closed Sanitation, Inc. Landfill, Lewistown, MT (License #291)

Dear Barry,

Hydrometrics, under contract to Barry Damschen Consulting, LLC, has prepared this letter report to transmit the results of the July 2011 groundwater monitoring at the Closed Sanitation, Inc. Landfill in Lewistown, Montana. Sampling activities were conducted on July 18, 2011.

Groundwater Flow Results

Monitoring locations for the Sanitation, Inc. landfill are shown on Figure 1. Static water levels were collected at monitoring wells SIMW-2, SIMW-3, and SIMW-4, and at piezometers SIP-1 and SIP-2 during the July 2011 monitoring event. The general shallow groundwater flow direction at the site is to the north and west, with water level depths ranging from about 30 to 50 feet below the wellhead measuring point (Table 1). At wells SIMW-2 and SIP-2, July 2011 groundwater elevations increased compared with June 2010 measurements, by +0.41 and +0.06 feet, respectively. Other site wells showed groundwater elevation decreases in July 2011 compared with June 2010, including SIMW-3 (-0.37 feet), SIMW-4 (-3.80 feet), and SIP-1 (-0.20 feet). Typically, groundwater level fluctuations are largest at well SIMW-4, presumably due to varying influence from the nearby detention pond (Figure 1).

The hydraulic gradient at the site appears to increase with proximity to the small draw to the north. An estimated average gradient of 0.15 was calculated for the site, based on the distance between the 4090-ft and 4040-ft groundwater elevation contours with a flow direction toward SIMW-4 (Figure 1). The groundwater seepage velocity can be estimated with previously determined (Entranco, 2002) values for aquifer porosity (estimated at 0.35), and hydraulic conductivity (9.2 ft/day), using the formula $V_s = KI/n_e$ where V_s = seepage velocity (ft/day); K = hydraulic conductivity (ft/day); I = hydraulic gradient (dimensionless); and n_e = porosity (dimensionless).

Using the values cited above, the estimated groundwater seepage velocity near well SIMW-4 for July 2011 is 3.9 ft/day or about 1420 ft/year.

Groundwater Quality Results

Water quality samples were collected from wells SIMW-2, SIMW-3, and SIMW-4 by bailing. Well SIMW-1 was previously removed from the groundwater monitoring program, so no sample or water level was collected at this well. Quality control (QC) samples included a field duplicate (collected at SIMW-4), a trip blank, and standard internal laboratory QC samples. Samples were submitted to Energy Laboratories in Helena, Montana for analysis of Solid Waste Table 1 inorganic parameters and volatile organic compounds (VOCs). Field sampling notes and laboratory analytical reports are in Attachment 1.

Trend plots were compiled for selected parameters and are in Attachment 1. Statistical Reports are located on the compact disc in Attachment 2 and field sampling notes and laboratory analytical reports are in Attachment 3.

Quality Control Results

No parameters were reported in the trip blank. The duplicate sample pair showed very good agreement for inorganic parameters, compared with the control limits presented in EPA guidance (EPA, 2004). Suggested duplicate sample control limits for inorganic parameters are <20% relative percent difference (RPD) for duplicate pairs with results $\geq$ five times the reporting limit (RL), or $\pm$ the reporting limit for duplicate pairs with one or both results $\leq$ five times the reporting limit. The July 2011 inorganic groundwater data for the closed Sanitation, Inc. Landfill sample-duplicate pair showed RPDs ranging from 0.0% to 5.1%, with an average of 1.8%. Dissolved nickel and zinc results agreed to within the $\pm$ RL control limit.

EPA guidance for organic data review (EPA, 1999) does not list suggested control limits for duplicate samples. However, the RPDs for J-qualified values of benzene (12.2%) and 1,1-dichloroethane (4.2%) in the July 2011 sample-duplicate pair showed good agreement, and values for o-xylene were also comparable (0.32 $\mu\text{g/L}$ in the original sample, <1 $\mu\text{g/L}$ in the duplicate). The total xylene reported concentrations of 0.32 $\mu\text{g/L}$ in the original and 0.70 $\mu\text{g/L}$ in the duplicate showed an elevated RPD (74.5%), reflecting a potential lack of precision at these low parameter concentrations.

Note that for sample-duplicate pairs, the higher of the two values reported is retained in the database and used for statistical testing purposes (or the lower of the two values for pH).

Statistical Testing Results

Intrawell prediction limits were used for statistical testing of the July 2011 groundwater data, since none of the three wells currently monitored can be considered upgradient of the waste fill areas. Baseline data for each parameter at each well included all appropriate data prior to the current sampling event. 'Historical' outliers were identified and removed from the baseline data set as described in the June 2009 statistical report (Hydrometrics, 2010), and as recommended in a subsequent letter from MDEQ (MDEQ, 2010). In addition, the following results exceeding

prediction limits for June 2009 and June 2010 were removed from the database for distribution and prediction limit testing:

Well	Date	Parameter
SIMW-2	6/14/2010	conductivity
SIMW-2	6/14/2010	iron
SIMW-3	6/22/2009	sulfate
SIMW-3	6/14/2010	conductivity
SIMW-3	6/14/2010	sulfate
SIMW-4	6/14/2010	pH

Note that these results are shown on the trend plots in Attachment 1 (and are included for trend testing if necessary). Outliers that were removed for purposes of intrawell statistical testing are tabulated in Attachment 2.

The Shapiro-Wilks Test of Normality was used to determine the distribution of the data (after removal of outliers) for each parameter at each well. July 2011 results were then compared with parametric or nonparametric prediction limits, based on the results of the normality test. Tests for trend (Mann-Kendall or Sen's Slope) were conducted for any parameters showing a prediction limit exceedance. The intrawell prediction limit results are summarized in Table 2, and detailed statistical reports are in Attachment 2.

Inorganic Parameters

In general, inorganic parameter concentrations for July 2011 were similar to previous data. No prediction limit exceedances were noted for any inorganic data from the Sanitation, Inc. monitoring wells during this monitoring event (Table 2).

Groundwater pH in the Sanitation, Inc. monitoring wells ranged from 7.2 to 7.6 in July 2011, and SC values ranged from 1120 μ mhos/cm at SIMW-3 to 2210 μ mhos/cm at SIMW-4. Elevated nitrate + nitrite concentrations persisted at SIMW-3 (9.3 mg/L, slightly less than the DEQ-7 groundwater standard of 10 mg/L), with a lower concentration reported at SIMW-2 (2.35 mg/L) and a nondetect value at SIMW-4 (<0.05 mg/L). Detectable metals concentrations in July 2011 groundwater samples included iron (0.06 mg/L) and zinc (0.01 mg/L) at well SIMW-2, iron (0.07 mg/L) and selenium (0.017 mg/L) at well SIMW-3, and iron (0.20 mg/L), nickel (0.04 mg/L) and zinc (0.03 mg/L) at well SIMW-4 (Table 2). Concentrations of these inorganic parameters were consistent with previous results observed at the Sanitation, Inc. monitoring wells.

The trend plots in Attachment 1 show that increasing trends in conductivity (SC) at the site's monitoring wells appear to have stabilized over the last several monitoring events. Values for other parameters also appear stable or (in the case of sulfate) decreasing.

Organic Parameters

Similar to previous monitoring events, low-level VOC parameters were reported in the July 2011 samples for each of the three sampled wells, qualified 'J' as present, but below the laboratory reporting limit, as follows:

Site	7/11 VOCs Reported (µg/L)
SIMW-2	1,1,1-trichloroethane (0.62 J)
SIMW-3	1,1,1-trichloroethane (0.50 J) trichlorofluoromethane (0.80 J)
SIMW-4	benzene (0.52 J) 1,1-dichloroethane (0.49 J) o-xylene (0.32 J) total xylenes (0.70 J)

Mann-Kendall trend tests were conducted for each of the reported VOC parameters (a Sen's Slope test was conducted for total xylenes at SIMW-4 due to the inability of the statistical software to calculate a Mann-Kendall result for this parameter). Similar to previous results, three parameters (1,1,1-trichloroethane at SIMW-2 and SIMW-3, and trichlorofluoromethane at SIMW-3) yielded statistically significant increasing trends, while none of the trends from SIMW-4 tested as significant (Table 2). Inspection of the trend plots in Attachment 1 shows similar patterns for 1,1,1-trichloroethane and trichlorofluoromethane at SIMW-2 and SIMW-3: a period of sporadic J-qualified detections from 1995 through 1999-2000, followed by an extended period of non-detectable values from about 2001 through 2004, and a recent reoccurrence of consistent J-qualified values from 2005 to the present. While it is possible that the recent data (2005 to present) represent a true increase in VOC concentrations from the 2001 through 2004 period of below detect values (<1 µg/L), it is also apparent that the statistically significant increasing trends for these parameters noted in this report are due in large part to the replacement of below detect values (<1 µg/L) with zero prior to trend testing. It should also be noted that recent concentrations of 1,1,1-trichloroethane and trichlorofluoromethane at wells SIMW-2 and SIMW-3 are largely within the range of concentrations observed during the initial period of detections (1995 through 2000). The J-qualified VOC concentrations at SIMW-2 and SIMW-3 have appeared relatively stable over the last six monitoring events.

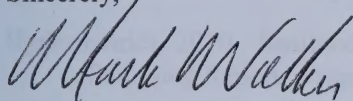
The July 2011 J-qualified VOC concentrations at well SIMW-4 represent a reoccurrence of previously detected low concentrations of benzene, o-xylene, and total xylenes observed at this well in 2006-2007; however, 1,1-dichloroethane had not previously been detected at this well, although it has occasionally been reported at J-qualified concentrations at well SIMW-2 (Attachment 1). Trend test results were not significant for VOC parameters at well SIMW-4, and July 2011 concentrations were similar to those observed in 2006-2007 at this well.

Summary

Groundwater elevation data for the July 2011 groundwater-monitoring event at the Closed Sanitation, Inc. Landfill were consistent with historic results, indicating flow to the north and west and an approximate seepage velocity of 3.9 ft/day. Groundwater samples collected in July 2011 also showed results consistent with previous data. No intrawell prediction limit exceedances were noted for any inorganic parameters. Low (J-qualified) concentrations of 1,1,1-trichloroethane (at SIMW-2 and SIMW-3) and trichlorofluoromethane (at SIMW-3) were reported, similar to results previously observed. At well SIMW-4, J-qualified values of benzene, 1,1-dichloroethane, o-xylene, and total xylenes were reported. The reported benzene, o-xylene, and total xylene concentrations were similar to those observed at this well in 2006-2007. Well SIMW-4 has no previous detections of 1,1-dichloroethane, although this constituent has been reported at J-qualified concentrations at well SIMW-2 in the past.

If you have any questions regarding this data report, please feel free to contact me at (406) 443-4150, Ext. 146.

Sincerely,



Mark Walker
Environmental Scientist

Enclosures

c: Closed Sanitation, Inc. Landfill
Barry Damschen Consulting, LLC

REFERENCES

- Entranco, 2002. Sanitation, Inc. Letter Report from Bruce Siegmund to Pat Potts, MDEQ dated March 21, 2002.
- EPA, 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities -- Unified Guidance. Office of Resource Conservation and Recovery, Program Implementation and Information Division, EPA 530-R-09-007, March 2009.
- EPA, 2004. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (Final). Office of Superfund Remediation and Technology Innovation, EPA 540-R-04-004, October 2004.
- EPA, 1999. USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review. Office of Emergency and Remedial Response, EPA 540/R-99/008, October 1999.
- Hydrometrics, 2010. Sanitation, Inc. Landfill, Lewistown, Montana -- June 2009 Groundwater Sampling Report. Prepared for Barry Damschen Consulting, LLC. May 2010.
- MDEQ, 2010. Letter to Mr. William Spoja (Sanitation Inc.) from Mr. Martin van Oort (MDEQ) RE: Closed Sanitation Inc. Landfill -- Fergus County -- License #291, June 2009 Groundwater Sampling Report. Dated June 2, 2010.

TABLE 1.1: SUMMARY OF THE DATA SOURCES AND METHODS USED IN THE ANALYSIS

Year	Source	Method
2000	Sanine	Household Survey
2001	Sanine	Household Survey
2002	Sanine	Household Survey
2003	Sanine	Household Survey
2004	Sanine	Household Survey
2005	Sanine	Household Survey
2006	Sanine	Household Survey
2007	Sanine	Household Survey
2008	Sanine	Household Survey
2009	Sanine	Household Survey
2010	Sanine	Household Survey

TABLES

TABLE 1. WATER LEVEL MEASUREMENT RESULTS

Well	July 2011 Static Water Level (ft bmp)	July 2011 Groundwater Elevation (ft)
SIMW-2	32.90	4090.81
SIMW-3	29.24	4081.67
SIMW-4	32.18	4045.89
SIP-1	33.46	4086.78
SIP-2	48.50	4102.84

NOTES: bmp = below measuring point

TABLE 2. JULY 2011 INTRAWELL PREDICTION LIMIT SUMMARY
Closed Sanitation, Inc. Landfill, Lewistown, Montana

Parameter	SIMW-2			SIMW-3			SIMW-4		
	Dist ¹	PL ²	Value	Dist ¹	PL ²	Value	Dist ¹	PL ²	Value
pH (s.u.)	N(95)	6.3-8.2	7.4	N(95)	6.4-8.4	7.6	N(95)	6.4-7.5	7.2
SC (µmhos/cm)	NN	1550	1330	ln-N(99)	1188	1120	N(95)	3582	2210
chloride (mg/L)	NN	66	38	N(95)	38	30	N(95)	373	190
sulfate (mg/L)	NN	236	140	N(99)	161	150	N(95)	364	81
COD (mg/L)	ln-N(99)	54	3	ln-N(95)	64	3	N(95)	201	92
nitrate + nitrite (mg/L as N)	N(95)	4.80	2.35	N(95)	13.0	9.3	NC	NC	<0.05
iron (diss) (mg/L)	NN	0.10	0.06	NN	0.67	0.070	NN	2.55	0.20
nickel (diss) (mg/L)	NC	NC	<0.01	NC	NC	<0.01	N(95)	0.07	0.04
selenium (diss) (mg/L)	NC	NC	<0.005	N(95)	0.027	0.017	NC	NC	<0.005
zinc (diss) (mg/L)	NN	0.08	0.01	NC	NC	<0.01	N(95)	0.05	0.03
benzene (µg/L)	NC		<1.0	NC		<1.0	ND		0.52 (J)[#]
1,1-dichloroethane (µg/L)	NC		<1.0	NC		<1.0	ND		0.49 (J)[#]
1,1,1-trichloroethane (µg/L)	ND		0.62 (J)^{**}	ND		0.50 (J)^{**}	NC		<1.0
trichlorofluoromethane (µg/L)	NC		<1.0	ND		0.80 (J)^{**}	NC		<1.0
o-xylene (µg/L)	NC		<1.0	NC		<1.0	ND		0.32 (J)[#]
total xylenes (µg/L)	NC		<1.0	NC		<1.0	ND		0.70 (J)[#]

NOTES: ¹ Dist = Distribution; test for normality was conducted using the Shapiro-Wilks test.

N(X) = data normally distributed at X% level of significance

ln-N(X) = data ln-normally distributed at X% level of significance

NN = data not normally or ln-normally distributed at 95% or 99% level of significance.

ND = baseline data below detection limits.

² PL = Prediction limits; calculated as follows:

Normal or ln-normal distribution: parametric intrawell prediction interval (99% one-sided, two-sided for pH)

Non-normal distribution: non-parametric intrawell prediction interval (99% one-sided, two-sided for pH)

ND: any detectable concentrations in compliance wells are considered significant

Bold values indicate statistically significant results.

NC = not calculated (most recent sample below detection limit).

[#]Trend test indicated no significant increasing (or decreasing for pH) trend.

^{**}Trend test indicated a significant increasing trend.

FIGURES

ATTACHMENT 1

TREND GRAPHS



Figure 1. (continued)

Table 1. Summary of the data for Figure 1. The table is organized into two main sections: 'Data' and 'Summary'. The 'Data' section contains a table with 10 columns and 10 rows. The 'Summary' section contains a table with 10 columns and 10 rows.



Conductivity
Multi-Well Time-Series Graph

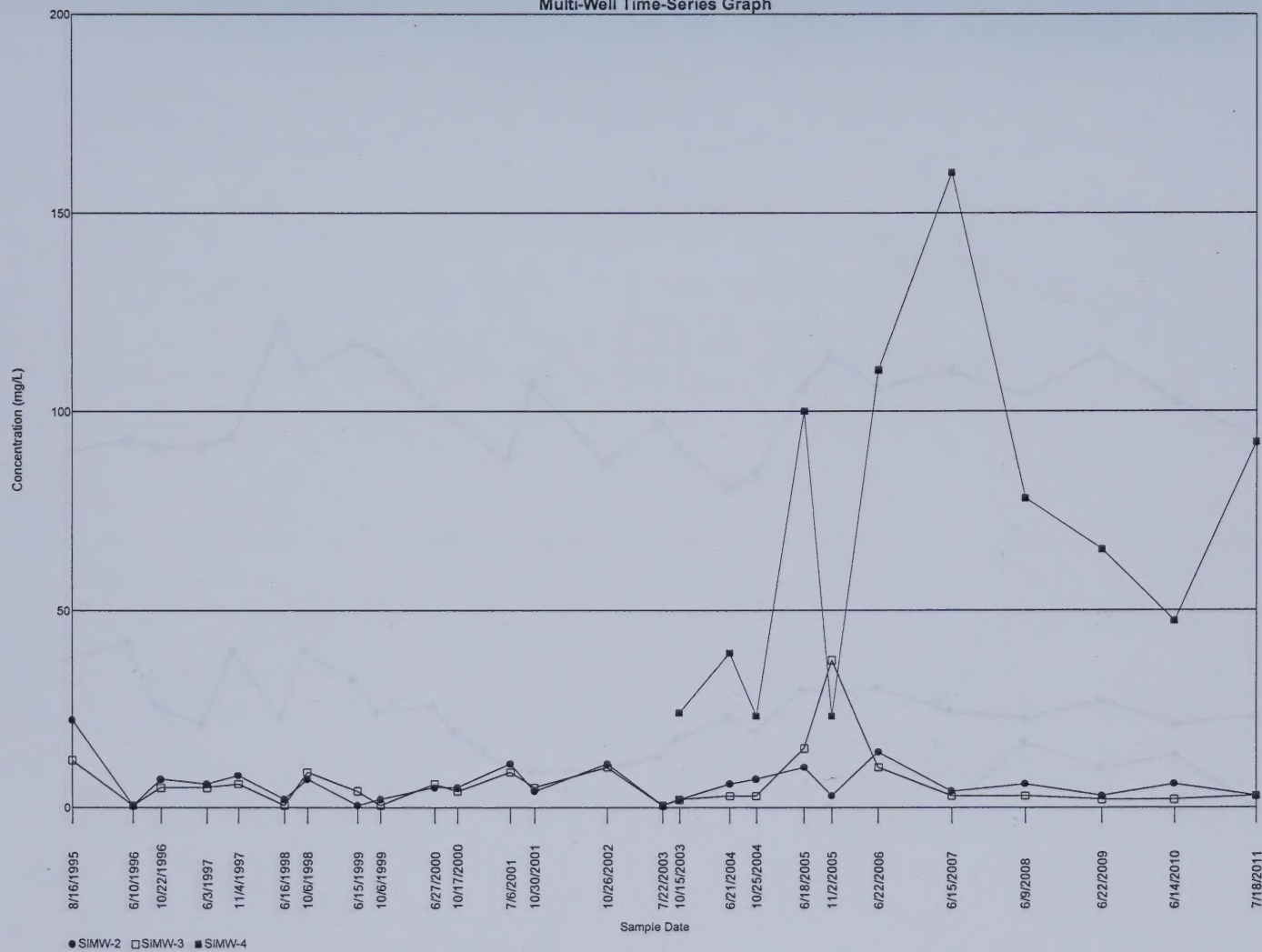


Chloride Multi-Well Time-Series Graph





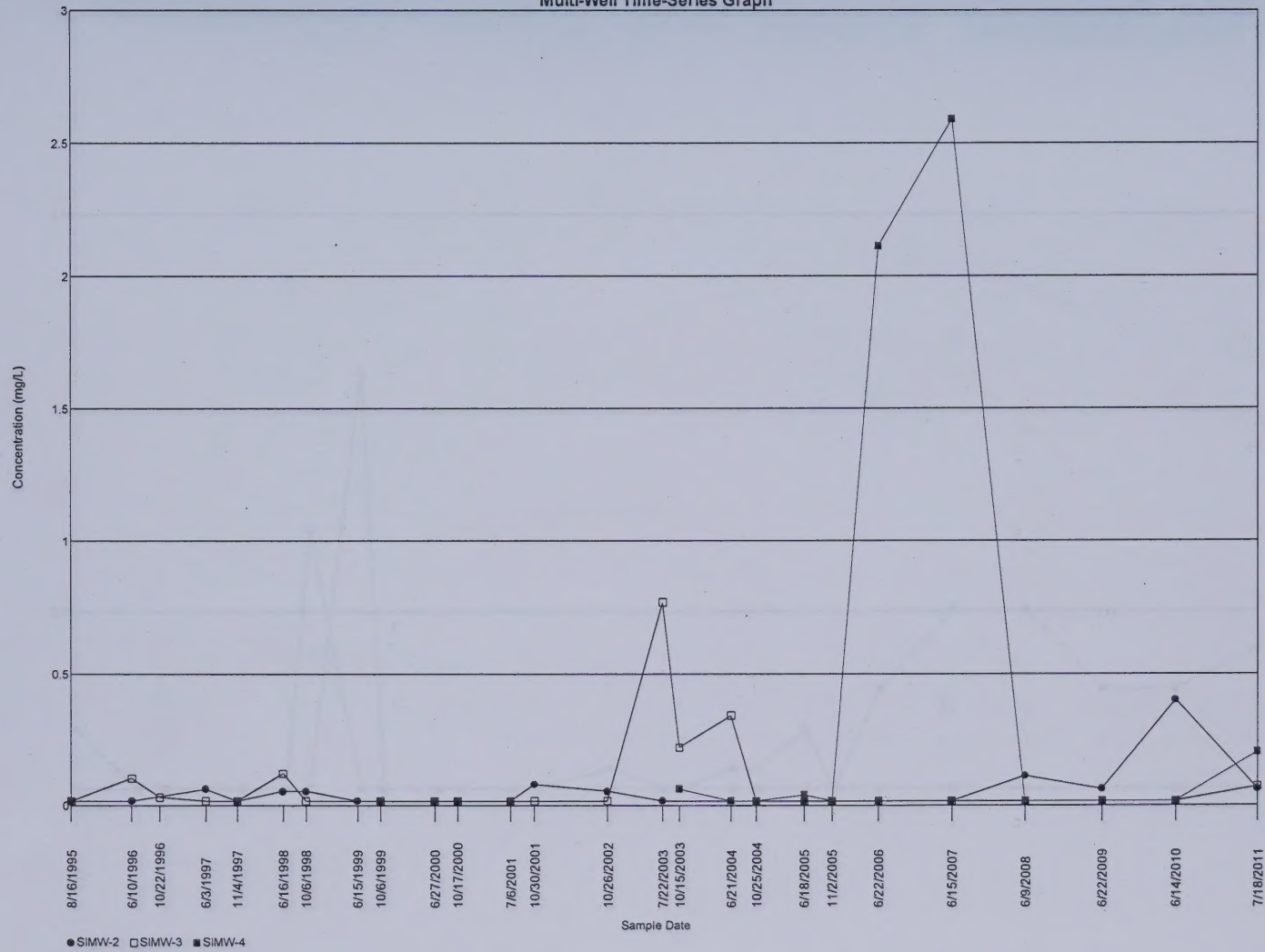
Oxygen Demand, Chemical (COD)
Multi-Well Time-Series Graph



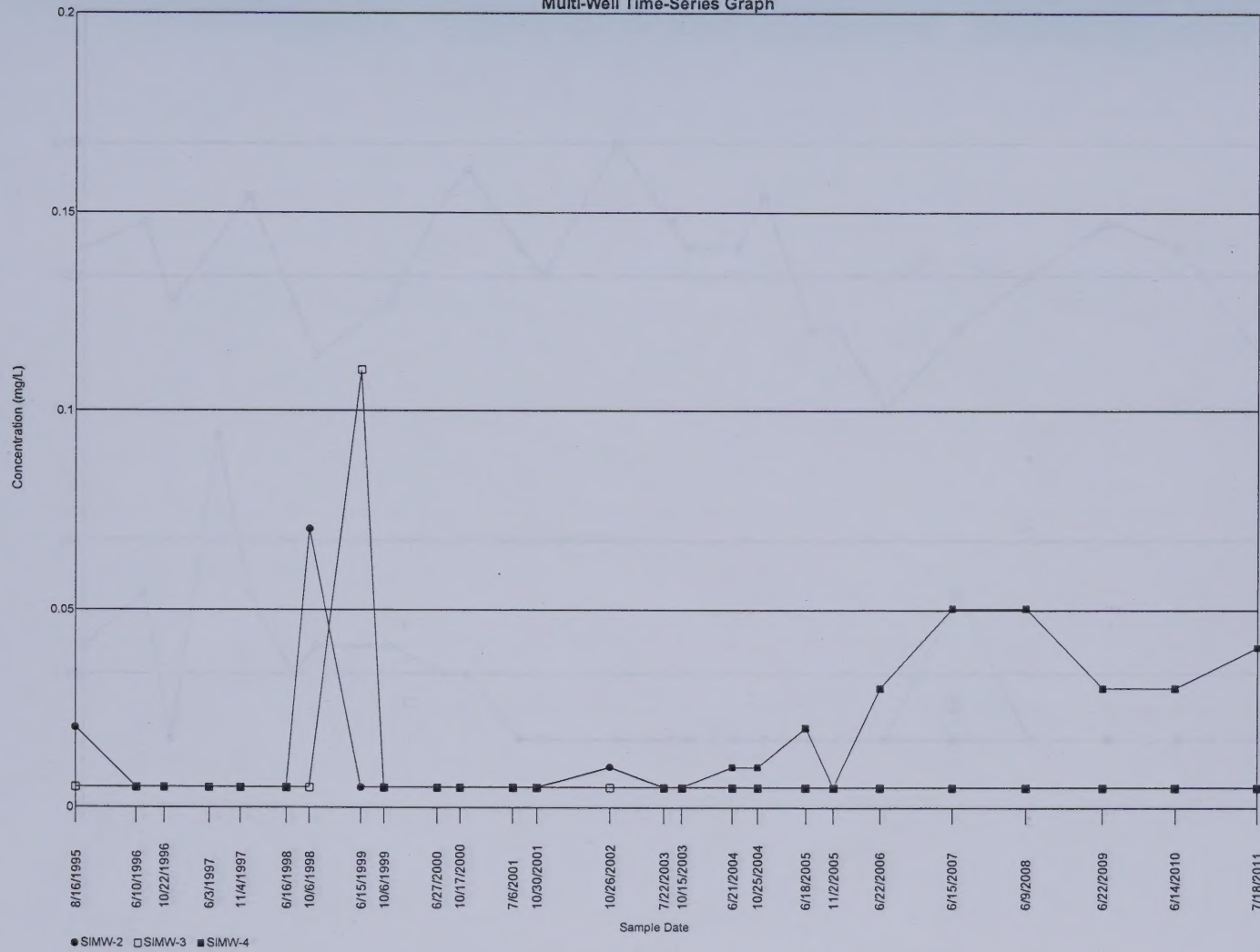
Nitrate + Nitrite as N
Multi-Well Time-Series Graph



Iron
Multi-Well Time-Series Graph



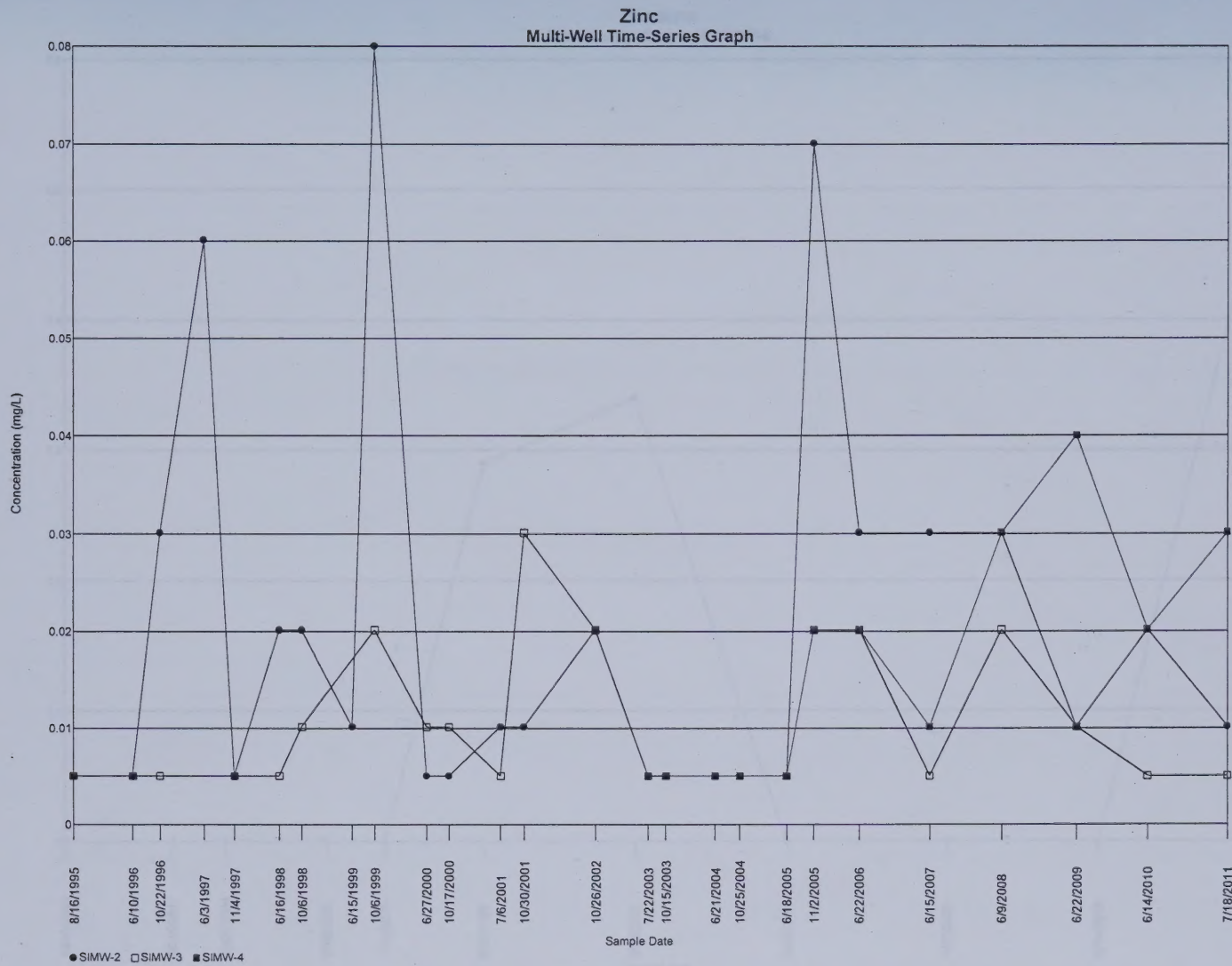
Nickel
Multi-Well Time-Series Graph

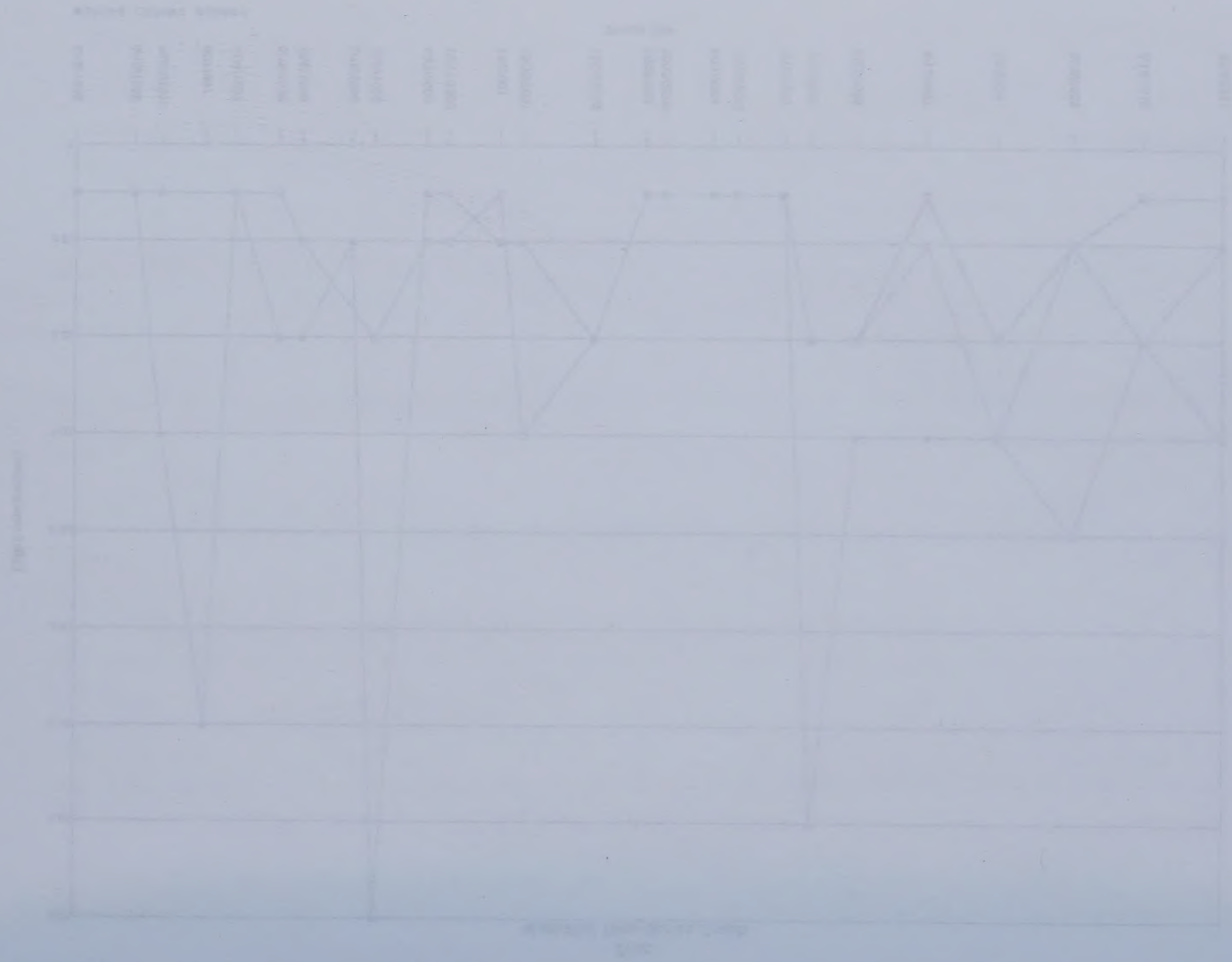


Selenium Multi-Well Time-Series Graph

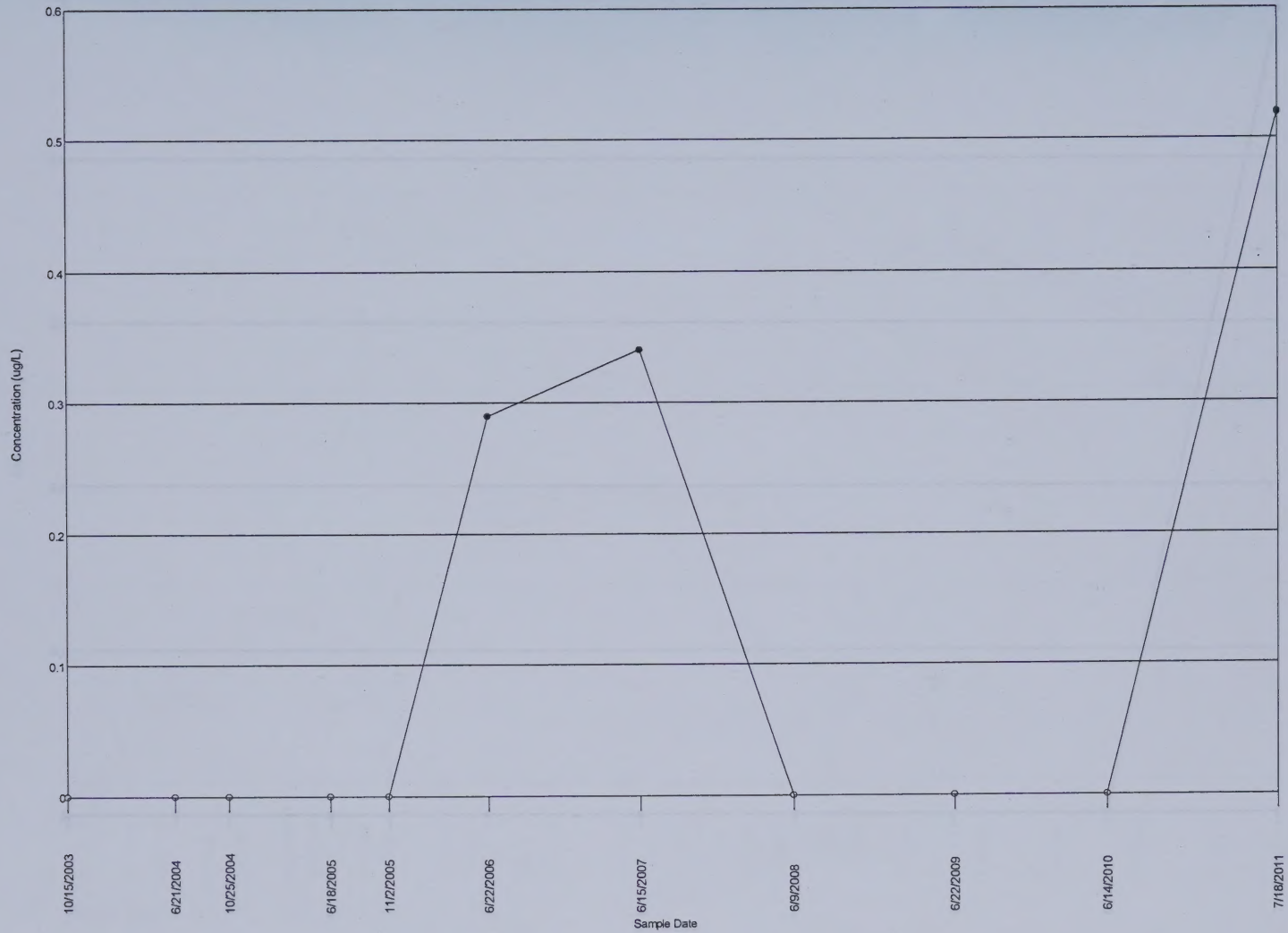








Benzene
Time-Series Graph of SIMW-4

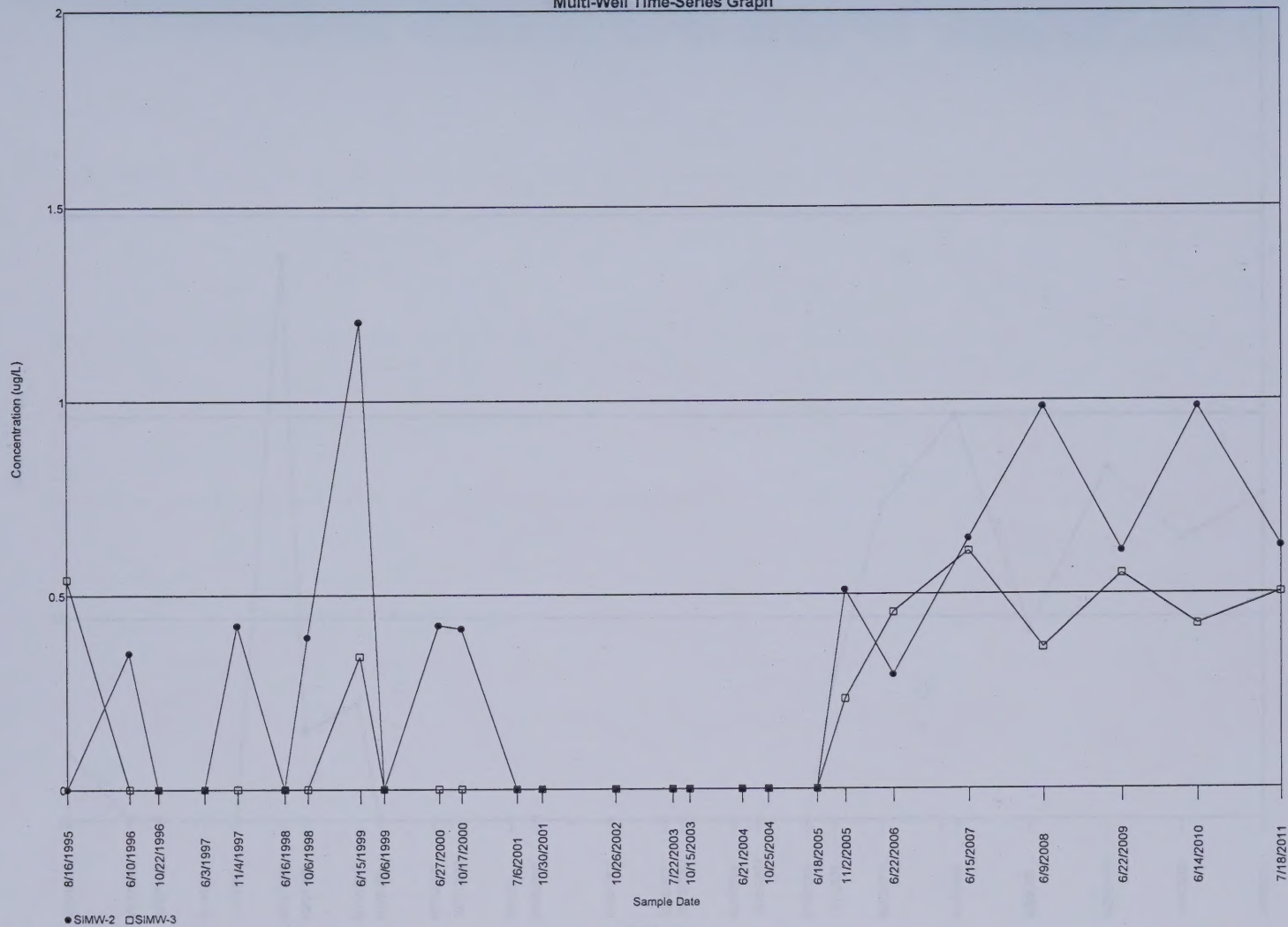




1,1-Dichloroethane
Time-Series Graph of SIMW-4



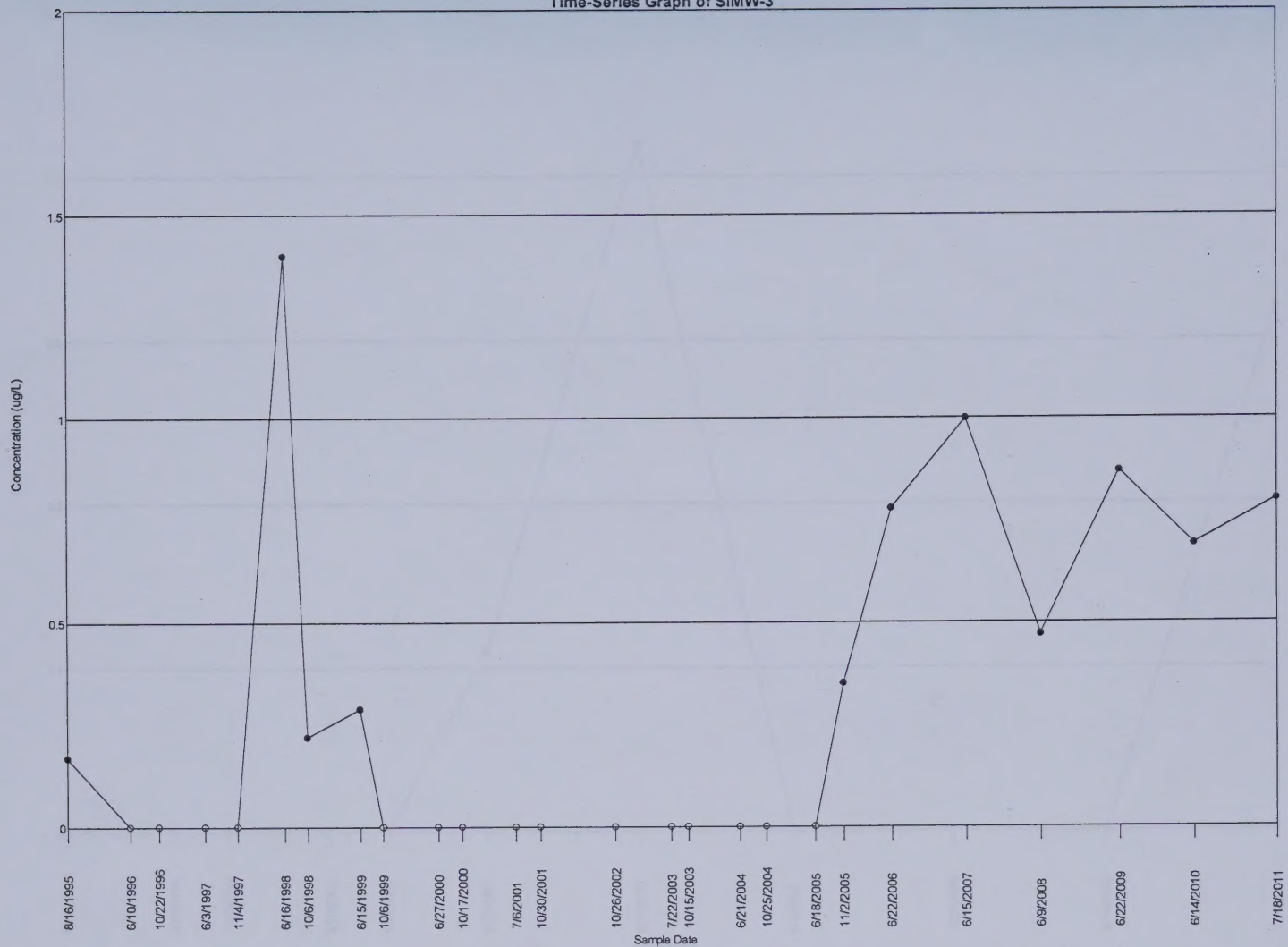
1,1,1-Trichloroethane
Multi-Well Time-Series Graph



Annual Report



Trichlorofluoromethane
Time-Series Graph of SIMW-3



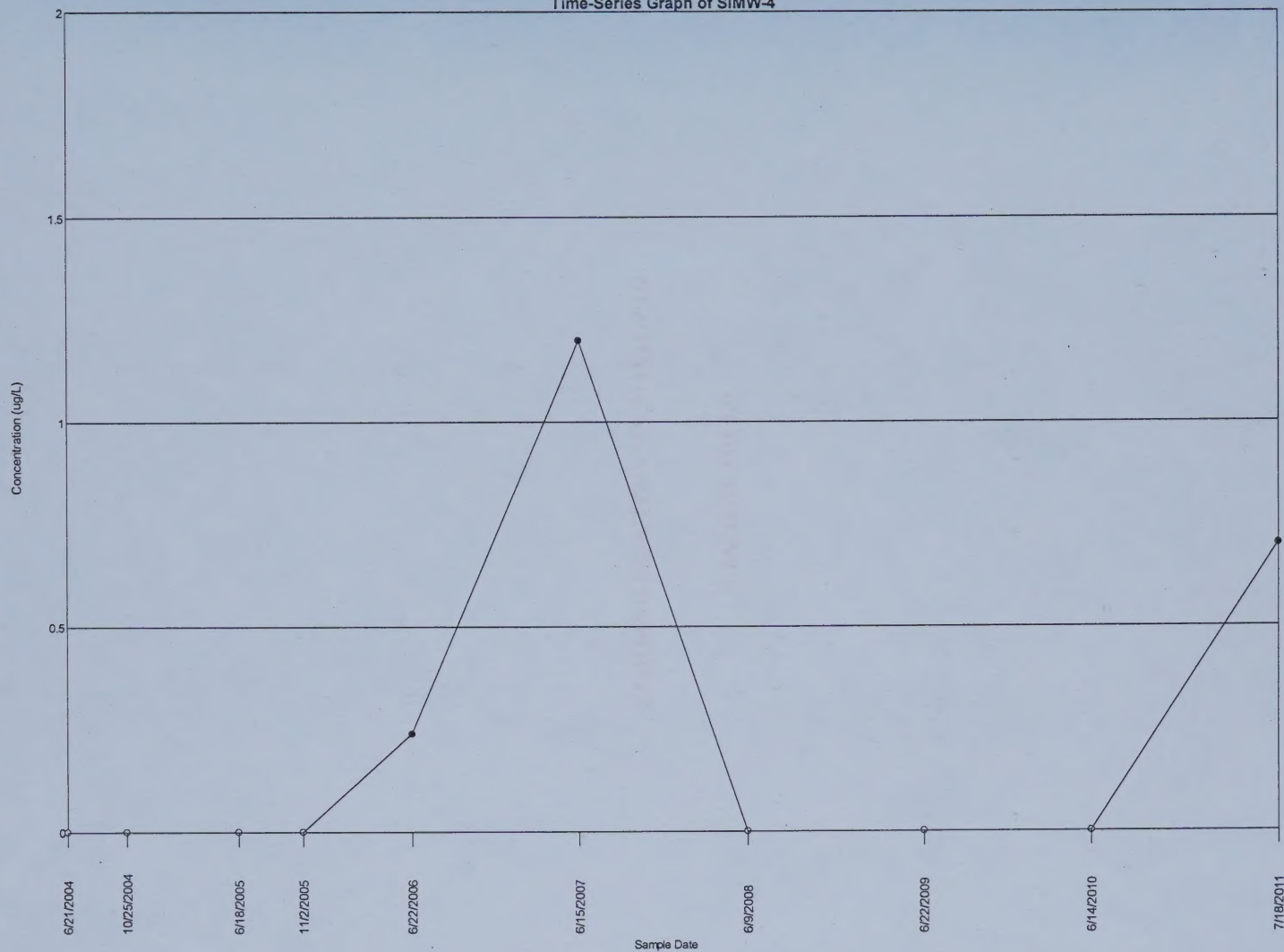


o-Xylene
Time-Series Graph of SIMW-4





Xylenes, Total
Time-Series Graph of SIMW-4





Graph of y = 10x + 40 and y = -10x + 60

ATTACHMENT 2

STATISTICAL ANALYSIS REPORTS

ATTACHMENT 2

STANDARD AND WORKS

ATTACHMENT 3

FIELD FORMS AND LABORATORY REPORT

pH-SC-Temp.

Instrument Calibration Form

Meter Type: Hyd-D1 R TPE C (03-538)

Serial No: 02064459

Project Name: Sanitation Inc LF

Date: 7-18-11

Personnel: B. D. Smith

Weather: hot

pH CALIBRATION

<u>Time</u>	<u>Buffer</u>	<u>Temperature</u>	<u>Reading</u>
	4		
6/230	7	27	ok
	10		

Calibration Check:

STRENGTH CHECK CALIBRATION

<u>Time</u>	<u>Standard</u>	<u>Temperature</u>	<u>Reading</u>	<u>Calc Factor</u>
1230	1413	29	ok	

Notes:

GROUNDWATER MONITORING VOLUMES

Project Location <u>SAN JAC LF</u>		Date Sampled <u>7-18-11</u>			
Well No.	Total Depth (Ft)	Depth to Water (Ft)	Difference (Ft)	1 Well Volume (Diff X .16)	3 Well Volume (X3)
2					
Typical	40	33	7	1.12	3.36
This Period		32.9		6A	
3					
Typical	37.5	29	8.5	1.36	4.1
This Period		29.24		6A	
4					
Typical	49.5	27	22.5	3.6	10.0
This Period		28.5 29.2	20.3	3.24	9.7
Typical					
This Period					
Typical					
This Period					

BARRY DAMSCHEN CONSULTING, LLC
Helena, Montana

Ground Water Monitoring Field Report

Project: Sandation Trc Landfill Well: 51mw-2
Personnel: B Damsch
Date: 7-18-11 Time: 1300
Conditions: spring-hot
Static Water Level: 32.90 Total Depth Purgin: _____
Purge Method: hand b.c. in Volume Purgin: _____

	Volume	Temperature	Conductivity	pH
1.	<u>13 1/4 (cng)</u>	<u>16.1</u>	<u>1460</u>	<u>7.16</u>
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

Pumping Level: _____ (Diaphragm Pump)

Recovery (Interval or Daily):

h1 0 h2 0.10 time 7 sec depth 40.5

Comments:

51P #2 = 48.50

LARRY DAMSCHEN CONSULTING, LLC

Helena, Montana

Ground Water Monitoring Field Report

Project: Sanitation Trc Landfill Well: 51mw-3
 Personnel: B. Damsche
 Date: 7-18-11 Time: 1400
 Conditions: Sunny-hot
 Static Water Level: 29.24 Total Depth Purgin: _____
 Purge Method: hard b7.1m Volume Purgin: _____

Volume	Temperature	Conductivity	pH
2 1/4 cny	12.5	1195	7.41
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Pumping Level: _____ (bladder pump)

Recovery (inertial or faster):

hl 0 at 0.10 time 6 sec depth 37.0

Comments:

51P1 = 33.46

ANALYTICAL SUMMARY REPORT

BARRY DAMSCHEN CONSULTING, LLC
Helena, Montana

Ground Water Monitoring Field Report

Project: Sanitation Inc Landfill Well: SMW-4,4D
Personnel: B. Damschen
Date: 7-18-11 Time: 1500
Conditions: Sunny 90°
Static Water Level: 32.18 Total Depth Purgin: _____
Purge Method: hand bailer Volume Purgin: _____

	Volume	Temperature	Conductivity	pH
1.	<u>9</u>	<u>12.9</u>	<u>2388</u>	<u>7.20</u>
2.	<u>9 1/2</u>	<u>12.95</u>	<u>2401</u>	<u>7.15</u>
3.	<u>10</u>	<u>12.91</u>	<u>2400</u>	<u>7.15</u>
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

Pumping Level: _____ (Diaphragm Pump)

Recovery (Inertial or bailer):

hl 0 at 0.10 time 3 1/2 sec depth 41.7

Comments:

Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name: <i>Brown Damrosch Consulting</i>	Project Name, PWS, Permit, Etc. <i>Sanitation Inc. closed Land Fill</i>	Sample Origin State: <i>MT</i>	EPA/State Compliance: Yes ☒ No ☐
Report Mail Address: <i>5531 York Rd. Helena, MT 59602</i>	Contact Name: <i>Brown Damrosch</i>	Phone/Fax: <i>401-5003</i>	Email: <i>B.Damrosch</i>
Invoice Address: <i>Sanitation Inc. 401-5003 P.O. Box 882 Sanitation, MT 59432</i>	Invoice Contact & Phone: <i>Bill Spojka - 538-7767</i>	Purchase Order:	Quote/Bottle Order:

Special Report/Formats: ☐ DW ☐ POTW/WWTP ☒ State: <i>MT</i> ☐ Other: <i>solid waste DFJ</i> ☐ EDD/EDT (Electronic Data) Format: _____ ☐ LEVEL IV ☐ NELAC	ANALYSIS REQUESTED Number of Containers: _____ Sample Type: A W S V B O D W Air Water Soils/Solids Vegetation Bioassay Other DW - Drinking Water <i>TABLE 1</i> <i>USE ONLY</i>										SEE ATTACHED Standard Turnaround (TAT) R U S H	Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page	Shipped by: <i>MT</i> Cooler ID(s): Receipt Temp: <i>1.4</i> °C On Ice: Y N				
	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)											Comments:	Custody Seal On Bottle Y N On Cooler Y N Intact Y N Signature Match Y N				
Collection Date	Collection Time	MATRIX															
1 <i>Station 2</i>	7-8-11	1300	710	X													
2 <i>Station 3</i>		1400	710	X													
3 <i>Station 4</i>		1500	710	X													
4 <i>Station 4D</i>		1500	710	X													
5 <i>TRIP Blank</i>			1W		X												
6																	
7																	
8																	
9																	
10																	

Custody Record MUST be Signed	Relinquished by (print): <i>Brown Damrosch</i>	Date/Time: <i>7-21-11 9:00</i>	Signature: <i>[Signature]</i>	Received by (print): <i>[Signature]</i>	Date/Time: <i>7-21-11 9:00</i>	Signature: <i>[Signature]</i>
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	Sample Disposal: Return to Client: _____	Lab Disposal: <i>X</i>	Received by Laboratory:	Date/Time:	Signature:	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.



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ANALYTICAL SUMMARY REPORT

August 05, 2011

Sanitation Inc
PO Box 882
Lewistown, MT 59457

Workorder No.: H11070319 Quote ID: H666 - Landfill Parameters

Project Name: Sanitation Inc. Closed Landfill

Energy Laboratories Inc Helena MT received the following 5 samples for Sanitation Inc on 7/21/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H11070319-001	SIMW-2	07/18/11 13:00	07/21/11	Aqueous	Metals by ICP/ICPMS, Dissolved Cyanide, Total Manual Distillation Total Cyanide Digestion Chemical Oxygen Demand Conductivity Anions by Ion Chromatography Nitrogen, Nitrate + Nitrite pH 8260-Volatile Organic Comp, 40 CFR Part 258 App I
H11070319-002	SIMW-3	07/18/11 14:00	07/21/11	Aqueous	Same As Above
H11070319-003	SIMW-4	07/18/11 15:00	07/21/11	Aqueous	Same As Above
H11070319-004	SIMW-4D	07/18/11 15:00	07/21/11	Aqueous	Same As Above
H11070319-005	TB 6/27/11 EM HCL1618 122710-3	07/18/11 13:00	07/21/11	Trip Blank	8260-Volatile Organic Comp, 40 CFR Part 258 App I

This report was prepared by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

Wanda Johnson
Login Supervisor

Digitally signed by
Wanda Johnson
Date: 2011.08.12 07:56:05 -06:00

CLIENT: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Sample Delivery Group: H11070319

Report Date: 08/05/11

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-001
Client Sample ID: SIMW-2

Report Date: 08/05/11
Collection Date: 07/18/11 13:00
Date Received: 07/21/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.4	s.u.		0.1		A4500-H B	07/21/11 12:47 / cmm
Conductivity	1330	umhos/cm		1		A2510 B	07/21/11 11:44 / cmm
INORGANICS							
Cyanide, Total	ND	mg/L		0.005		Kelada mod	07/25/11 12:15 / eli-b
Chloride	38	mg/L		1		E300.0	07/21/11 20:52 / zeg
Sulfate	140	mg/L	D	2		E300.0	07/21/11 20:52 / zeg
AGGREGATE ORGANICS							
Oxygen Demand, Chemical (COD)	3	mg/L		1		E410.4	07/27/11 15:30 / reh
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	2.35	mg/L		0.05		E353.2	07/21/11 14:36 / reh
METALS, DISSOLVED							
Antimony	ND	mg/L		0.005		SW6020	07/26/11 04:42 / dck
Arsenic	ND	mg/L		0.005		SW6020	07/26/11 04:42 / dck
Barium	ND	mg/L		0.1		SW6020	07/26/11 04:42 / dck
Beryllium	ND	mg/L		0.001		SW6020	07/27/11 18:11 / dck
Cadmium	ND	mg/L		0.001		SW6020	07/26/11 04:42 / dck
Chromium	ND	mg/L		0.01		SW6020	07/26/11 04:42 / dck
Cobalt	ND	mg/L		0.01		SW6020	07/27/11 02:44 / dck
Copper	ND	mg/L		0.01		SW6020	07/26/11 04:42 / dck
Iron	0.06	mg/L		0.03		SW6020	07/26/11 04:42 / dck
Lead	ND	mg/L		0.01		SW6020	07/26/11 04:42 / dck
Mercury	ND	mg/L		0.001		SW6020	07/27/11 18:11 / dck
Nickel	ND	mg/L		0.01		SW6020	07/26/11 04:42 / dck
Selenium	ND	mg/L		0.005		SW6020	07/26/11 04:42 / dck
Silver	ND	mg/L		0.005		SW6020	07/26/11 04:42 / dck
Thallium	ND	mg/L		0.005		SW6020	07/26/11 04:42 / dck
Vanadium	ND	mg/L		0.1		SW6020	07/26/11 04:42 / dck
Zinc	0.01	mg/L		0.01		SW6020	07/26/11 04:42 / dck
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	07/25/11 16:42 / abb
Acrylonitrile	ND	ug/L		20		SW8260B	07/25/11 16:42 / abb
Benzene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Bromochloromethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Bromodichloromethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Bromoform	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Bromomethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Carbon disulfide	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-001
Client Sample ID: SIMW-2

Report Date: 08/05/11
Collection Date: 07/18/11 13:00
Date Received: 07/21/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Chlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Chloroethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Chloroform	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Chloromethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Dibromomethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
1,1-Dichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
cis-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
1,2-Dichloropropane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Ethylbenzene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
2-Hexanone	ND	ug/L		20		SW8260B	07/25/11 16:42 / abb
Iodomethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Methyl ethyl ketone	ND	ug/L		20		SW8260B	07/25/11 16:42 / abb
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	07/25/11 16:42 / abb
Methylene chloride	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Styrene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Tetrachloroethene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Toluene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
1,1,1-Trichloroethane	0.62	ug/L	J	1.0		SW8260B	07/25/11 16:42 / abb
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Trichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Vinyl acetate	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Vinyl chloride	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
m+p-Xylenes	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
o-Xylene	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Xylenes, Total	ND	ug/L		1.0		SW8260B	07/25/11 16:42 / abb
Surr: 1,2-Dichloroethane-d4	119	%REC		70-130		SW8260B	07/25/11 16:42 / abb

Report Definitions:
 RL - Analyte reporting limit.
 QCL - Quality control limit.
 J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.
 ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-001
Client Sample ID SIMW-2

Report Date: 08/05/11
Collection Date: 07/18/11 13:00
DateReceived: 07/21/11
Matrix: Aqueous

[illegible]

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-002
Client Sample ID: SIMW-3

Report Date: 08/05/11
Collection Date: 07/18/11 14:00
Date Received: 07/21/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.6	s.u.		0.1		A4500-H B	07/21/11 12:54 / cmm
Conductivity	1120	umhos/cm		1		A2510 B	07/21/11 11:44 / cmm
INORGANICS							
Cyanide, Total	ND	mg/L		0.005		Kelada mod	07/25/11 12:23 / eli-b
Chloride	30	mg/L		1		E300.0	07/21/11 21:26 / zeg
Sulfate	150	mg/L	D	2		E300.0	07/21/11 21:26 / zeg
AGGREGATE ORGANICS							
Oxygen Demand, Chemical (COD)	3	mg/L		1		E410.4	07/27/11 15:30 / reh
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	9.3	mg/L	D	0.1		E353.2	07/21/11 14:37 / reh
METALS, DISSOLVED							
Antimony	ND	mg/L		0.005		SW6020	07/26/11 04:46 / dck
Arsenic	ND	mg/L		0.005		SW6020	07/26/11 04:46 / dck
Barium	ND	mg/L		0.1		SW6020	07/26/11 04:46 / dck
Beryllium	ND	mg/L		0.001		SW6020	07/27/11 18:29 / dck
Cadmium	ND	mg/L		0.001		SW6020	07/26/11 04:46 / dck
Chromium	ND	mg/L		0.01		SW6020	07/26/11 04:46 / dck
Cobalt	ND	mg/L		0.01		SW6020	07/27/11 02:48 / dck
Copper	ND	mg/L		0.01		SW6020	07/26/11 04:46 / dck
Iron	0.07	mg/L		0.03		SW6020	07/26/11 04:46 / dck
Lead	ND	mg/L		0.01		SW6020	07/26/11 04:46 / dck
Mercury	ND	mg/L		0.001		SW6020	07/27/11 18:29 / dck
Nickel	ND	mg/L		0.01		SW6020	07/26/11 04:46 / dck
Selenium	0.017	mg/L		0.005		SW6020	07/26/11 04:46 / dck
Silver	ND	mg/L		0.005		SW6020	07/26/11 04:46 / dck
Thallium	ND	mg/L		0.005		SW6020	07/26/11 04:46 / dck
Vanadium	ND	mg/L		0.1		SW6020	07/26/11 04:46 / dck
Zinc	ND	mg/L		0.01		SW6020	07/26/11 04:46 / dck
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	07/25/11 17:13 / abb
Acrylonitrile	ND	ug/L		20		SW8260B	07/25/11 17:13 / abb
Benzene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Bromochloromethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Bromodichloromethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Bromoform	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Bromomethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Carbon disulfide	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-002
Client Sample ID: SIMW-3

Report Date: 08/05/11
Collection Date: 07/18/11 14:00
Date Received: 07/21/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Chlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Chloroethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Chloroform	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Chloromethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Dibromomethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
1,1-Dichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
cis-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
1,2-Dichloropropane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Ethylbenzene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
2-Hexanone	ND	ug/L		20		SW8260B	07/25/11 17:13 / abb
Iodomethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Methyl ethyl ketone	ND	ug/L		20		SW8260B	07/25/11 17:13 / abb
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	07/25/11 17:13 / abb
Methylene chloride	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Styrene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Tetrachloroethene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Toluene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
1,1,1-Trichloroethane	0.50	ug/L	J	1.0		SW8260B	07/25/11 17:13 / abb
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Trichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Trichlorofluoromethane	0.80	ug/L	J	1.0		SW8260B	07/25/11 17:13 / abb
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Vinyl acetate	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Vinyl chloride	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
m+p-Xylenes	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
o-Xylene	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Xylenes, Total	ND	ug/L		1.0		SW8260B	07/25/11 17:13 / abb
Surr: 1,2-Dichloroethane-d4	117	%REC		70-130		SW8260B	07/25/11 17:13 / abb

Report Definitions:
 RL - Analyte reporting limit.
 QCL - Quality control limit.
 J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.
 ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-002
Client Sample ID SIMW-3

Report Date: 08/05/11
Collection Date: 07/18/11 14:00
DateReceived: 07/21/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Dibromofluoromethane	99.0	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Surr: p-Bromofluorobenzene	104	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Surr: Toluene-d8	102	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Ethanol	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Methanol	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Acetone	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Chloroform	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Dichloromethane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Nitrobenzene	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Benzene	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Toluene	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Xylene	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Styrene	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Propylene Glycol	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Diethylene Glycol	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Triethylene Glycol	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Glycerol	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Dimethyl Sulfoxide	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% N-Methylpyrrolidone	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Tetrahydrofuran	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Methyl Cellosolve	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Ethyl Cellosolve	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Butyl Cellosolve	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Propylene Glycol Monomethyl Ether	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Diethylene Glycol Monomethyl Ether	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Triethylene Glycol Monomethyl Ether	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Glycerol Monomethyl Ether	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Dimethyl Formamide	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% N,N-Dimethylacetamide	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% N-Methyl-2-pyrrolidone	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Hexamethylphosphoramide	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Dimethylsiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Polydimethylsiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Cyclopentasiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Octamethylcyclotrisiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Decamethylcyclotrisiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Dodecamethylcyclotrisiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Tetramethylcyclotetrasiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Hexamethylcyclotetrasiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Octamethylcyclotetrasiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Decamethylcyclotetrasiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Dodecamethylcyclotetrasiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Tetramethylcyclopentasiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Hexamethylcyclopentasiloxane	100	%REC		70-130		SW8260B	07/25/11 17:13 / abb
Sample: 100% Octamethylcyclopentasiloxane	100	%REC		70-130		SW8260B	07/25/11 17:

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-003
Client Sample ID: SIMW-4

Report Date: 08/05/11
Collection Date: 07/18/11 15:00
Date Received: 07/21/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.2	s.u.		0.1		A4500-H B	07/21/11 12:55 / cmm
Conductivity	2210	umhos/cm		1		A2510 B	07/21/11 11:45 / cmm
INORGANICS							
Cyanide, Total	ND	mg/L		0.005		Kelada mod	07/25/11 12:25 / eli-b
Chloride	190	mg/L		1		E300.0	07/21/11 21:38 / zeg
Sulfate	81	mg/L	D	5		E300.0	07/21/11 21:38 / zeg
AGGREGATE ORGANICS							
Oxygen Demand, Chemical (COD)	92	mg/L		1		E410.4	07/27/11 15:30 / reh
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	07/21/11 14:25 / reh
METALS, DISSOLVED							
Antimony	ND	mg/L		0.005		SW6020	07/26/11 04:51 / dck
Arsenic	ND	mg/L		0.005		SW6020	07/26/11 04:51 / dck
Barium	ND	mg/L		0.1		SW6020	07/26/11 04:51 / dck
Beryllium	ND	mg/L		0.001		SW6020	07/27/11 18:33 / dck
Cadmium	ND	mg/L		0.001		SW6020	07/26/11 04:51 / dck
Chromium	ND	mg/L		0.01		SW6020	07/26/11 04:51 / dck
Cobalt	ND	mg/L		0.01		SW6020	07/27/11 18:33 / dck
Copper	ND	mg/L		0.01		SW6020	07/26/11 04:51 / dck
Iron	0.19	mg/L		0.03		SW6020	07/27/11 02:53 / dck
Lead	ND	mg/L		0.01		SW6020	07/26/11 04:51 / dck
Mercury	ND	mg/L		0.001		SW6020	07/27/11 18:33 / dck
Nickel	0.04	mg/L		0.01		SW6020	07/26/11 04:51 / dck
Selenium	ND	mg/L		0.005		SW6020	07/27/11 02:53 / dck
Silver	ND	mg/L		0.005		SW6020	07/26/11 04:51 / dck
Thallium	ND	mg/L		0.005		SW6020	07/26/11 04:51 / dck
Vanadium	ND	mg/L		0.1		SW6020	07/26/11 04:51 / dck
Zinc	0.03	mg/L		0.01		SW6020	07/26/11 04:51 / dck
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	07/25/11 17:44 / abb
Acrylonitrile	ND	ug/L		20		SW8260B	07/25/11 17:44 / abb
Benzene	0.52	ug/L	J	1.0		SW8260B	07/25/11 17:44 / abb
Bromochloromethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Bromodichloromethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Bromoform	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Bromomethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Carbon disulfide	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
J - Estimated value. The analyte was present but less than the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-003
Client Sample ID SIMW-4

Report Date: 08/05/11
Collection Date: 07/18/11 15:00
Date Received: 07/21/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Chlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Chloroethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Chloroform	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Chloromethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Dibromomethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
1,1-Dichloroethane	0.47	ug/L	J	1.0		SW8260B	07/25/11 17:44 / abb
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
cis-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
1,2-Dichloropropane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Ethylbenzene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
2-Hexanone	ND	ug/L		20		SW8260B	07/25/11 17:44 / abb
Iodomethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Methyl ethyl ketone	ND	ug/L		20		SW8260B	07/25/11 17:44 / abb
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	07/25/11 17:44 / abb
Methylene chloride	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Styrene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Tetrachloroethene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Toluene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Trichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Vinyl acetate	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
Vinyl chloride	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
m+p-Xylenes	ND	ug/L		1.0		SW8260B	07/25/11 17:44 / abb
o-Xylene	0.32	ug/L	J	1.0		SW8260B	07/25/11 17:44 / abb
Xylenes, Total	0.32	ug/L	J	1.0		SW8260B	07/25/11 17:44 / abb
Surr: 1,2-Dichloroethane-d4	108	%REC		70-130		SW8260B	07/25/11 17:44 / abb

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-003
Client Sample ID SIMW-4

Report Date: 08/05/11
Collection Date: 07/18/11 15:00
DateReceived: 07/21/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Surr: Dibromofluoromethane	97.0	%REC		70-130		SW8260B	07/25/11 17:44 / abb
Surr: p-Bromofluorobenzene	107	%REC		70-130		SW8260B	07/25/11 17:44 / abb
Surr: Toluene-d8	103	%REC		70-130		SW8260B	07/25/11 17:44 / abb

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-004
Client Sample ID: SIMW-4D

Report Date: 08/05/11
Collection Date: 07/18/11 15:00
Date Received: 07/21/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
PHYSICAL PROPERTIES							
pH	7.5	s.u.		0.1		A4500-H B	07/21/11 13:16 / cmm
Conductivity	2200	umhos/cm		1		A2510 B	07/21/11 11:46 / cmm
INORGANICS							
Cyanide, Total	ND	mg/L		0.005		Kelada mod	07/25/11 12:28 / eli-b
Chloride	190	mg/L		1		E300.0	07/21/11 21:50 / zeg
Sulfate	81	mg/L	D	5		E300.0	07/21/11 21:50 / zeg
AGGREGATE ORGANICS							
Oxygen Demand, Chemical (COD)	91	mg/L		1		E410.4	07/27/11 15:30 / reh
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.05		E353.2	07/21/11 14:26 / reh
METALS, DISSOLVED							
Antimony	ND	mg/L		0.005		SW6020	07/26/11 04:55 / dck
Arsenic	ND	mg/L		0.005		SW6020	07/26/11 04:55 / dck
Barium	ND	mg/L		0.1		SW6020	07/26/11 04:55 / dck
Beryllium	ND	mg/L		0.001		SW6020	07/27/11 18:38 / dck
Cadmium	ND	mg/L		0.001		SW6020	07/26/11 04:55 / dck
Chromium	ND	mg/L		0.01		SW6020	07/26/11 04:55 / dck
Cobalt	ND	mg/L		0.01		SW6020	07/27/11 18:38 / dck
Copper	ND	mg/L		0.01		SW6020	07/26/11 04:55 / dck
Iron	0.20	mg/L		0.03		SW6020	07/27/11 02:57 / dck
Lead	ND	mg/L		0.01		SW6020	07/26/11 04:55 / dck
Mercury	ND	mg/L		0.001		SW6020	07/27/11 18:38 / dck
Nickel	0.04	mg/L		0.01		SW6020	07/26/11 04:55 / dck
Selenium	ND	mg/L		0.005		SW6020	07/27/11 02:57 / dck
Silver	ND	mg/L		0.005		SW6020	07/26/11 04:55 / dck
Thallium	ND	mg/L		0.005		SW6020	07/26/11 04:55 / dck
Vanadium	ND	mg/L		0.1		SW6020	07/26/11 04:55 / dck
Zinc	0.02	mg/L		0.01		SW6020	07/26/11 04:55 / dck
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	07/25/11 18:15 / abb
Acrylonitrile	ND	ug/L		20		SW8260B	07/25/11 18:15 / abb
Benzene	0.46	ug/L	J	1.0		SW8260B	07/25/11 18:15 / abb
Bromochloromethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Bromodichloromethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Bromoform	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Bromomethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Carbon disulfide	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
J - Estimated value. The analyte was present but less than the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-004
Client Sample ID: SIMW-4D

Report Date: 08/05/11
Collection Date: 07/18/11 15:00
Date Received: 07/21/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Chlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Chloroethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Chloroform	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Chloromethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Dibromomethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
1,1-Dichloroethane	0.49	ug/L	J	1.0		SW8260B	07/25/11 18:15 / abb
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
cis-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
1,2-Dichloropropane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Ethylbenzene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
2-Hexanone	ND	ug/L		20		SW8260B	07/25/11 18:15 / abb
Iodomethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Methyl ethyl ketone	ND	ug/L		20		SW8260B	07/25/11 18:15 / abb
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	07/25/11 18:15 / abb
Methylene chloride	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Styrene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Tetrachloroethene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Toluene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Trichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Vinyl acetate	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Vinyl chloride	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
m+p-Xylenes	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
o-Xylene	ND	ug/L		1.0		SW8260B	07/25/11 18:15 / abb
Xylenes, Total	0.70	ug/L	J	1.0		SW8260B	07/25/11 18:15 / abb
Surr: 1,2-Dichloroethane-d4	120	%REC		70-130		SW8260B	07/25/11 18:15 / abb

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Prepared by Helena, MT Branch

Report Date: 08/05/11
Collection Date: 07/18/11 15:00
DateReceived: 07/21/11
Matrix: Aqueous

Report Definitions:	RL - Analyte reporting limit. QCL - Quality control limit.	MCL - Maximum contaminant level. ND - Not detected at the reporting limit.
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LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-005
Client Sample ID TB 6/27/11 EM HCL1618 122710-3

Report Date: 08/05/11
Collection Date: 07/18/11 13:00
Date Received: 07/21/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Acetone	ND	ug/L		20		SW8260B	07/25/11 13:05 / abb
Acrylonitrile	ND	ug/L		20		SW8260B	07/25/11 13:05 / abb
Benzene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Bromochloromethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Bromodichloromethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Bromoform	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Bromomethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Carbon disulfide	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Carbon tetrachloride	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Chlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Chlorodibromomethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Chloroethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Chloroform	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Chloromethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,2-Dibromo-3-chloropropane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,2-Dibromoethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Dibromomethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,2-Dichlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,4-Dichlorobenzene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
trans-1,4-Dichloro-2-butene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Dichlorodifluoromethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,1-Dichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,2-Dichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,1-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
cis-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
trans-1,2-Dichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,2-Dichloropropene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
cis-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
trans-1,3-Dichloropropene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Ethylbenzene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
2-Hexanone	ND	ug/L		20		SW8260B	07/25/11 13:05 / abb
Iodomethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Methyl ethyl ketone	ND	ug/L		20		SW8260B	07/25/11 13:05 / abb
Methyl isobutyl ketone	ND	ug/L		20		SW8260B	07/25/11 13:05 / abb
Methylene chloride	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Styrene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,1,1,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,1,2,2-Tetrachloroethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Tetrachloroethene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Toluene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,1,1-Trichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,1,2-Trichloroethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Trichloroethene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill
Lab ID: H11070319-005
Client Sample ID TB 6/27/11 EM HCL1618 122710-3

Report Date: 08/05/11
Collection Date: 07/18/11 13:00
DateReceived: 07/21/11
Matrix: Trip Blank

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS							
Trichlorofluoromethane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
1,2,3-Trichloropropane	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Vinyl acetate	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Vinyl chloride	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
m+p-Xylenes	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
o-Xylene	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Xylenes, Total	ND	ug/L		1.0		SW8260B	07/25/11 13:05 / abb
Surr: 1,2-Dichloroethane-d4	98.0	%REC		70-130		SW8260B	07/25/11 13:05 / abb
Surr: Dibromofluoromethane	90.0	%REC		70-130		SW8260B	07/25/11 13:05 / abb
Surr: p-Bromofluorobenzene	99.0	%REC		70-130		SW8260B	07/25/11 13:05 / abb
Surr: Toluene-d8	95.0	%REC		70-130		SW8260B	07/25/11 13:05 / abb

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill

Report Date: 08/05/11
Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B										
Analytical Run: COND_110721B										
Sample ID: ICV1_110721A	Initial Calibration Verification Standard									
Conductivity		999	umhos/cm	1.0	100	90	110			07/21/11 11:04

Method: A2510 B					Batch: 110721A-COND-PROBE-W				
Sample ID: H11070319-003ADUP		Sample Duplicate			Run: COND_110721B			07/21/11 11:45	
Conductivity		2170 umhos/cm			1.0			2.0 10	

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill

Report Date: 08/05/11
Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: PH2_110721A		
Sample ID: CCV1_110721A	Continuing Calibration Verification Standard									07/21/11 11:04
pH	3.98	s.u.	0.10	100	98	102				
Sample ID: CCV2_110721A	Continuing Calibration Verification Standard									07/21/11 11:06
pH	7.01	s.u.	0.10	100	98	102				
Sample ID: ICV1_110721A	Initial Calibration Verification Standard									07/21/11 11:07
pH	7.01	s.u.	0.10	100	99	101				
Method: A4500-H B								Batch: 110721A-PH-W		
Sample ID: CCV3_110721A	Continuing Calibration Verification Standard					Run: PH2_110721A		07/21/11 11:03		
pH	10.1	s.u.	0.10	101	98	110				
Sample ID: H11070317-005ADUP	Sample Duplicate					Run: PH2_110721A		07/21/11 11:22		
pH	7.06	s.u.	0.10					0.3	3	

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill

Report Date: 08/05/11
Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0		Analytical Run: IC102-H_110721A								
Sample ID: ICV072111-12	2	Initial Calibration Verification Standard								07/21/11 15:50
Chloride		100	mg/L	1.0	101	90	110			
Sulfate		410	mg/L	1.0	103	90	110			
Sample ID: CCV072111-30	2	Continuing Calibration Verification Standard								07/21/11 19:19
Chloride		100	mg/L	1.0	104	90	110			
Sulfate		400	mg/L	1.0	100	90	110			
Method: E300.0		Batch: R72852								
Sample ID: ICB072111-13	2	Method Blank				Run: IC102-H_110721A			07/21/11 16:01	
Chloride		0.06	mg/L	0.02						
Sulfate		0.05	mg/L	0.02						
Sample ID: LFB072111-14	2	Laboratory Fortified Blank				Run: IC102-H_110721A			07/21/11 16:13	
Chloride		51	mg/L	1.0	103	90	110			
Sulfate		200	mg/L	1.1	98	90	110			
Sample ID: H11070319-001AMS	2	Sample Matrix Spike				Run: IC102-H_110721A			07/21/11 21:03	
Chloride		130	mg/L	1.0	91	90	110			
Sulfate		490	mg/L	2.0	87	90	110			S
Sample ID: H11070319-001AMSD	2	Sample Matrix Spike Duplicate				Run: IC102-H_110721A			07/21/11 21:15	
Chloride		130	mg/L	1.0	90	90	110	0.0	20	
Sulfate		490	mg/L	2.0	87	90	110	0.0	20	S

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc

Report Date: 08/05/11

Project: Sanitation Inc. Closed Landfill

Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2 Analytical Run: FIA203-HE_110721A										
Sample ID: ICV	Initial Calibration Verification Standard									
Nitrogen, Nitrate+Nitrite as N		1.02	mg/L	0.050	102	90	110			07/21/11 13:04
Sample ID: ICB	Initial Calibration Blank, Instrument Blank									
Nitrogen, Nitrate+Nitrite as N		-0.00217	mg/L	0.050		0	0			07/21/11 13:10
Sample ID: CCV	Continuing Calibration Verification Standard									
Nitrogen, Nitrate+Nitrite as N		0.455	mg/L	0.050	91	90	110			07/21/11 14:19
Method: E353.2 Batch: R72840										
Sample ID: LCS	Laboratory Control Sample									
Nitrogen, Nitrate+Nitrite as N		25.3	mg/L	0.20	104	90	110	Run: FIA203-HE_110721A		07/21/11 13:05
Sample ID: LFB	Laboratory Fortified Blank									
Nitrogen, Nitrate+Nitrite as N		0.972	mg/L	0.050	97	90	110	Run: FIA203-HE_110721A		07/21/11 13:06
Sample ID: MBLK	Method Blank									
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.0009				Run: FIA203-HE_110721A		07/21/11 13:11
Sample ID: H11070321-001BMS	Sample Matrix Spike									
Nitrogen, Nitrate+Nitrite as N		1.16	mg/L	0.050	87	90	110	Run: FIA203-HE_110721A		07/21/11 14:29 S
Sample ID: H11070321-001BMSD	Sample Matrix Spike Duplicate									
Nitrogen, Nitrate+Nitrite as N		1.16	mg/L	0.050	87	90	110	Run: FIA203-HE_110721A	0.1 20	07/21/11 14:30 S

Qualifiers:

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S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill

Report Date: 08/05/11
Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E410.4										
Analytical Run: SPECTRO_110727A										
Sample ID: CCV	Continuing Calibration Verification Standard									
Oxygen Demand, Chemical (COD)		47	mg/L	1.0	93	90	110			07/27/11 15:30
Method: E410.4										
Batch: R73012										
Sample ID: LCS	Laboratory Control Sample									
Oxygen Demand, Chemical (COD)		310	mg/L	5.0	102	90	110			07/27/11 15:30
Sample ID: MBLK										
Method Blank										
Oxygen Demand, Chemical (COD)		ND	mg/L	0.6						07/27/11 15:30
Sample ID: H11070317-005CMS										
Sample Matrix Spike										
Oxygen Demand, Chemical (COD)		71	mg/L	1.0	76	90	110			07/27/11 15:30 S
Sample ID: H11070317-005CMSD										
Sample Matrix Spike Duplicate										
Oxygen Demand, Chemical (COD)		77	mg/L	1.0	88	90	110	8.2	20	07/27/11 15:30 S

Qualifiers:

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ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc

Report Date: 08/05/11

Project: Sanitation Inc. Closed Landfill

Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: Kelada mod		Analytical Run: SUB-B169515								
Sample ID: ICV		Initial Calibration Verification Standard								07/25/11 09:57
Cyanide, Total		0.157	mg/L	0.0050	105	90	110			
Method: Kelada mod		Batch: B_55657								
Sample ID: B11072094-001DMSD		Sample Matrix Spike Duplicate								07/25/11 12:20
Cyanide, Total		0.101	mg/L	0.0050	101	90	110	1.6	10	
Sample ID: B11072094-001DMS		Sample Matrix Spike								07/25/11 12:18
Cyanide, Total		0.102	mg/L	0.0050	102	90	110			
Sample ID: MB		Method Blank								07/25/11 10:02
Cyanide, Total		ND	mg/L	0.002						
Sample ID: LFB		Laboratory Fortified Blank								07/25/11 10:00
Cyanide, Total		0.0995	mg/L	0.0050	100	90	110			
Sample ID: B11071976-008DMSD		Sample Matrix Spike Duplicate								07/25/11 11:37
Cyanide, Total		0.104	mg/L	0.0050	100	90	110	0.4	10	
Sample ID: B11071976-008DMS		Sample Matrix Spike								07/25/11 11:35
Cyanide, Total		0.104	mg/L	0.0050	100	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill

Report Date: 08/05/11
Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020		Analytical Run: ICPMS204-B_110725B								
Sample ID: ICV STD		14 Initial Calibration Verification Standard								
		07/25/11 16:19								
Antimony		0.0489	mg/L	0.0010	98	90	110			
Arsenic		0.0491	mg/L	0.0010	98	90	110			
Barium		0.0482	mg/L	0.0010	96	90	110			
Cadmium		0.0257	mg/L	0.0010	103	90	110			
Chromium		0.0493	mg/L	0.0010	99	90	110			
Copper		0.0510	mg/L	0.0010	102	90	110			
Iron		0.259	mg/L	0.0010	104	90	110			
Lead		0.0498	mg/L	0.0010	100	90	110			
Nickel		0.0505	mg/L	0.0010	101	90	110			
Selenium		0.0497	mg/L	0.0010	99	90	110			
Silver		0.0240	mg/L	0.0010	96	90	110			
Thallium		0.0488	mg/L	0.0010	98	90	110			
Vanadium		0.0495	mg/L	0.0010	99	90	110			
Zinc		0.0515	mg/L	0.0010	103	90	110			
Sample ID: ICV STD		14 Initial Calibration Verification Standard								
		07/25/11 19:34								
Antimony		0.0496	mg/L	0.0010	99	90	110			
Arsenic		0.0506	mg/L	0.0010	101	90	110			
Barium		0.0488	mg/L	0.0010	98	90	110			
Cadmium		0.0261	mg/L	0.0010	104	90	110			
Chromium		0.0504	mg/L	0.0010	101	90	110			
Copper		0.0519	mg/L	0.0010	104	90	110			
Iron		0.262	mg/L	0.0010	105	90	110			
Lead		0.0500	mg/L	0.0010	100	90	110			
Nickel		0.0516	mg/L	0.0010	103	90	110			
Selenium		0.0514	mg/L	0.0010	103	90	110			
Silver		0.0239	mg/L	0.0010	95	90	110			
Thallium		0.0499	mg/L	0.0010	100	90	110			
Vanadium		0.0502	mg/L	0.0010	100	90	110			
Zinc		0.0513	mg/L	0.0010	103	90	110			
Method: SW6020		Batch: R72948								
Sample ID: ICB		14 Method Blank								
		Run: ICPMS204-B_110725B								
		07/25/11 17:57								
Antimony		ND	mg/L	7E-06						
Arsenic		ND	mg/L	3E-05						
Barium		ND	mg/L	3E-05						
Cadmium		ND	mg/L	1E-05						
Chromium		ND	mg/L	6E-05						
Copper		ND	mg/L	3E-05						
Iron		ND	mg/L	0.0002						
Lead		ND	mg/L	1.0E-05						
Nickel		ND	mg/L	5E-05						
Selenium		ND	mg/L	4E-05						
Silver		3E-05	mg/L	3E-05						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc

Report Date: 08/05/11

Project: Sanitation Inc. Closed Landfill

Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										Batch: R72948
Sample ID: ICB	14	Method Blank						Run: ICPMS204-B_110725B		07/25/11 17:57
Thallium		ND	mg/L	7E-06						
Vanadium		ND	mg/L	1E-05						
Zinc		0.0004	mg/L	0.0003						
Sample ID: LFB	14	Laboratory Fortified Blank						Run: ICPMS204-B_110725B		07/25/11 18:01
Antimony		0.0484	mg/L	0.0010	97	80	120			
Arsenic		0.0489	mg/L	0.0010	98	80	120			
Barium		0.0484	mg/L	0.0010	97	80	120			
Cadmium		0.0481	mg/L	0.0010	96	80	120			
Chromium		0.0492	mg/L	0.0010	98	80	120			
Copper		0.0478	mg/L	0.0010	96	80	120			
Iron		4.77	mg/L	0.0010	95	80	120			
Lead		0.0501	mg/L	0.0010	100	80	120			
Nickel		0.0490	mg/L	0.0010	98	80	120			
Selenium		0.0484	mg/L	0.0010	97	80	120			
Silver		0.0191	mg/L	0.0010	95	80	120			
Thallium		0.0494	mg/L	0.0010	99	80	120			
Vanadium		0.0488	mg/L	0.0010	98	80	120			
Zinc		0.0505	mg/L	0.0010	100	80	120			
Sample ID: H11070317-001BMS	14	Sample Matrix Spike						Run: ICPMS204-B_110725B		07/26/11 03:48
Antimony		0.243	mg/L	0.0050	97	75	125			
Arsenic		0.259	mg/L	0.0050	103	75	125			
Barium		0.258	mg/L	0.10	100	75	125			
Cadmium		0.230	mg/L	0.0010	92	75	125			
Chromium		0.246	mg/L	0.010	98	75	125			
Copper		0.251	mg/L	0.010	99	75	125			
Iron		23.6	mg/L	0.030	93	75	125			
Lead		0.246	mg/L	0.010	98	75	125			
Nickel		0.246	mg/L	0.010	97	75	125			
Selenium		0.250	mg/L	0.0050	100	75	125			
Silver		0.0874	mg/L	0.0050	87	75	125			
Thallium		0.245	mg/L	0.0050	98	75	125			
Vanadium		0.251	mg/L	0.10	100	75	125			
Zinc		0.261	mg/L	0.010	96	75	125			
Sample ID: H11070317-001BMSD	14	Sample Matrix Spike Duplicate						Run: ICPMS204-B_110725B		07/26/11 03:52
Antimony		0.243	mg/L	0.0050	97	75	125	0.3	20	
Arsenic		0.256	mg/L	0.0050	102	75	125	1.1	20	
Barium		0.254	mg/L	0.10	98	75	125	1.4	20	
Cadmium		0.230	mg/L	0.0010	92	75	125	0.1	20	
Chromium		0.245	mg/L	0.010	98	75	125	0.0	20	
Copper		0.249	mg/L	0.010	98	75	125	1.0	20	
Iron		24.0	mg/L	0.030	95	75	125	1.6	20	
Lead		0.246	mg/L	0.010	98	75	125	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill

Report Date: 08/05/11
Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										
Sample ID: H11070317-001BMSD 14 Sample Matrix Spike Duplicate										
Run: ICPMS204-B_110725B										Batch: R72948
Nickel		0.246	mg/L	0.010	98	75	125	0.1	20	07/26/11 03:52
Selenium		0.250	mg/L	0.0050	100	75	125	0.1	20	
Silver		0.0916	mg/L	0.0050	92	75	125	4.7	20	
Thallium		0.244	mg/L	0.0050	98	75	125	0.3	20	
Vanadium		0.250	mg/L	0.10	100	75	125	0.3	20	
Zinc		0.260	mg/L	0.010	96	75	125	0.4	20	
Method: SW6020										
Sample ID: ICV STD 3 Initial Calibration Verification Standard										
Run: ICPMS204-B_110726B										Analytical Run: ICPMS204-B_110726B
Cobalt		0.0519	mg/L	0.0010	104	90	110			07/26/11 13:11
Iron		0.266	mg/L	0.0010	106	90	110			
Selenium		0.0505	mg/L	0.0010	101	90	110			
Sample ID: ICV STD 3 Initial Calibration Verification Standard										
Cobalt		0.0496	mg/L	0.0010	99	90	110			07/26/11 20:21
Iron		0.248	mg/L	0.0010	99	90	110			
Selenium		0.0482	mg/L	0.0010	96	90	110			
Method: SW6020										
Sample ID: ICB 3 Method Blank										
Run: ICPMS204-B_110726B										Batch: R72991
Cobalt		ND	mg/L	9E-06						07/26/11 13:57
Iron		0.0007	mg/L	0.0002						
Selenium		ND	mg/L	4E-05						
Sample ID: LFB 3 Laboratory Fortified Blank										
Run: ICPMS204-B_110726B										07/26/11 14:01
Cobalt		0.0498	mg/L	0.0010	100	80	120			
Iron		4.78	mg/L	0.0010	96	80	120			
Selenium		0.0485	mg/L	0.0010	97	80	120			
Sample ID: H11070317-005BMS 3 Sample Matrix Spike										
Run: ICPMS204-B_110726B										07/27/11 02:08
Cobalt		0.244	mg/L	0.010	97	75	125			
Iron		23.4	mg/L	0.030	94	75	125			
Selenium		0.256	mg/L	0.0050	97	75	125			
Sample ID: H11070317-005BMSD 3 Sample Matrix Spike Duplicate										
Run: ICPMS204-B_110726B										07/27/11 02:12
Cobalt		0.243	mg/L	0.010	97	75	125	0.5	20	
Iron		23.7	mg/L	0.030	95	75	125	1.2	20	
Selenium		0.251	mg/L	0.0050	95	75	125	1.9	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc

Report Date: 08/05/11

Project: Sanitation Inc. Closed Landfill

Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020		Analytical Run: ICPMS204-B_110727B								
Sample ID: ICV STD	3	Initial Calibration Verification Standard								07/27/11 10:28
Beryllium		0.0248	mg/L	0.0010	99	90	110			
Cobalt		0.0510	mg/L	0.0010	102	90	110			
Mercury		0.00193	mg/L	0.0010	97	90	110			
Method: SW6020		Batch: R73015								
Sample ID: ICB	3	Method Blank								07/27/11 12:27
						Run: ICPMS204-B_110727B				
Beryllium		ND	mg/L	2E-05						
Cobalt		ND	mg/L	9E-06						
Mercury		ND	mg/L	9E-06						
Sample ID: LFB	3	Laboratory Fortified Blank								07/27/11 12:31
						Run: ICPMS204-B_110727B				
Beryllium		0.0481	mg/L	0.0010	96	80	120			
Cobalt		0.0479	mg/L	0.0010	96	80	120			
Mercury		0.000957	mg/L	0.0010	96	80	120			
Sample ID: H11070319-001BMS	3	Sample Matrix Spike								07/27/11 18:15
						Run: ICPMS204-B_110727B				
Beryllium		0.230	mg/L	0.0010	92	75	125			
Cobalt		0.231	mg/L	0.010	92	75	125			
Mercury		0.00455	mg/L	0.0010	91	75	125			
Sample ID: H11070319-001BMSD	3	Sample Matrix Spike Duplicate								07/27/11 18:20
						Run: ICPMS204-B_110727B				
Beryllium		0.230	mg/L	0.0010	92	75	125	0.2	20	
Cobalt		0.235	mg/L	0.010	94	75	125	1.7	20	
Mercury		0.00469	mg/L	0.0010	94	75	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill

Report Date: 08/05/11
Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Sample ID: CCV072511a										
54 Continuing Calibration Verification Standard										
Analytical Run: R72941										
07/25/11 10:08										
Acetone		51.2	ug/L	20	102	70	130			
Acrylonitrile		48.8	ug/L	20	98	70	130			
Benzene		5.00	ug/L	1.0	100	70	130			
Bromochloromethane		4.80	ug/L	1.0	96	70	130			
Bromodichloromethane		5.12	ug/L	1.0	102	70	130			
Bromoform		5.00	ug/L	1.0	100	70	130			
Bromomethane		4.76	ug/L	1.0	95	70	130			
Carbon disulfide		5.20	ug/L	1.0	104	70	130			
Carbon tetrachloride		4.76	ug/L	1.0	95	70	130			
Chlorobenzene		5.12	ug/L	1.0	102	70	130			
Chlorodibromomethane		5.20	ug/L	1.0	104	70	130			
Chloroethane		4.96	ug/L	1.0	99	70	130			
Chloroform		4.72	ug/L	1.0	94	80	120			
Chloromethane		5.68	ug/L	1.0	114	70	130			
1,2-Dibromo-3-chloropropane		4.64	ug/L	1.0	93	70	130			
1,2-Dibromoethane		4.72	ug/L	1.0	94	70	130			
Dibromomethane		4.92	ug/L	1.0	98	70	130			
1,2-Dichlorobenzene		4.88	ug/L	1.0	98	70	130			
1,4-Dichlorobenzene		4.92	ug/L	1.0	98	70	130			
trans-1,4-Dichloro-2-butene		5.28	ug/L	1.0	106	70	130			
Dichlorodifluoromethane		5.40	ug/L	1.0	108	70	130			
1,1-Dichloroethane		5.28	ug/L	1.0	106	70	130			
1,2-Dichloroethane		5.48	ug/L	1.0	110	70	130			
1,1-Dichloroethene		4.80	ug/L	1.0	96	80	120			
cis-1,2-Dichloroethene		5.20	ug/L	1.0	104	70	130			
trans-1,2-Dichloroethene		4.60	ug/L	1.0	92	70	130			
1,2-Dichloropropane		5.24	ug/L	1.0	105	80	120			
cis-1,3-Dichloropropene		5.16	ug/L	1.0	103	70	130			
trans-1,3-Dichloropropene		5.28	ug/L	1.0	106	70	130			
Ethylbenzene		5.20	ug/L	1.0	104	80	120			
2-Hexanone		50.4	ug/L	20	101	70	130			
Iodomethane		5.00	ug/L	1.0	100	70	130			
Methyl ethyl ketone		48.8	ug/L	20	98	70	130			
Methyl isobutyl ketone		51.2	ug/L	20	102	70	130			
Methylene chloride		4.84	ug/L	1.0	97	70	130			
Styrene		5.00	ug/L	1.0	100	70	130			
1,1,1,2-Tetrachloroethane		5.16	ug/L	1.0	103	70	130			
1,1,2,2-Tetrachloroethane		5.00	ug/L	1.0	100	70	130			
Tetrachloroethene		5.32	ug/L	1.0	106	70	130			
Toluene		5.04	ug/L	1.0	101	80	120			
1,1,1-Trichloroethane		4.88	ug/L	1.0	98	70	130			
1,1,2-Trichloroethane		5.48	ug/L	1.0	110	70	130			
Trichloroethene		5.16	ug/L	1.0	103	70	130			
Trichlorofluoromethane		5.20	ug/L	1.0	104	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc

Report Date: 08/05/11

Project: Sanitation Inc. Closed Landfill

Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Analytical Run: R72941
Sample ID: CCV072511a										07/25/11 10:08
54 Continuing Calibration Verification Standard										
1,2,3-Trichloropropane		4.72	ug/L	1.0	94	70	130			
Vinyl acetate		4.44	ug/L	1.0	89	70	130			
Vinyl chloride		5.60	ug/L	1.0	112	80	120			
m+p-Xylenes		10.2	ug/L	1.0	102	70	130			
o-Xylene		5.20	ug/L	1.0	104	70	130			
Xylenes, Total		15.4	ug/L	1.0	103	70	130			
Surr: 1,2-Dichloroethane-d4				1.0	124	70	130			
Surr: Dibromofluoromethane				1.0	106	70	130			
Surr: p-Bromofluorobenzene				1.0	98	70	130			
Surr: Toluene-d8				1.0	105	70	130			
Sample ID: CCV072511a										
53 Continuing Calibration Verification Standard										
Acetone		10	mg/kg	4.0	102	70	130			
Acrylonitrile		9.8	mg/kg	4.0	98	70	130			
Benzene		1.0	mg/kg	0.20	100	70	130			
Bromochloromethane		0.96	mg/kg	0.20	96	70	130			
Bromodichloromethane		1.0	mg/kg	0.20	102	70	130			
Bromoform		1.0	mg/kg	0.20	100	70	130			
Bromomethane		0.95	mg/kg	0.20	95	70	130			
Carbon disulfide		1.0	mg/kg	0.20	104	70	130			
Carbon tetrachloride		0.95	mg/kg	0.20	95	70	130			
Chlorobenzene		1.0	mg/kg	0.20	102	70	130			
Chlorodibromomethane		1.0	mg/kg	0.20	104	70	130			
Chloroethane		0.99	mg/kg	0.20	99	70	130			
Chloroform		0.94	mg/kg	0.20	94	80	120			
Chloromethane		1.1	mg/kg	0.20	114	70	130			
1,2-Dibromo-3-chloropropane		0.93	mg/kg	0.20	93	70	130			
1,2-Dibromoethane		0.94	mg/kg	0.20	94	70	130			
Dibromomethane		0.98	mg/kg	0.20	98	70	130			
1,2-Dichlorobenzene		0.98	mg/kg	0.20	98	70	130			
1,4-Dichlorobenzene		0.98	mg/kg	0.20	98	70	130			
Dichlorodifluoromethane		1.1	mg/kg	0.20	108	70	130			
1,1-Dichloroethane		1.1	mg/kg	0.20	106	70	130			
1,2-Dichloroethane		1.1	mg/kg	0.20	110	70	130			
1,1-Dichloroethene		0.96	mg/kg	0.20	96	80	120			
cis-1,2-Dichloroethene		1.0	mg/kg	0.20	104	70	130			
trans-1,2-Dichloroethene		0.92	mg/kg	0.20	92	70	130			
1,2-Dichloropropane		1.0	mg/kg	0.20	105	80	120			
cis-1,3-Dichloropropene		1.0	mg/kg	0.20	103	70	130			
trans-1,3-Dichloropropene		1.1	mg/kg	0.20	106	70	130			
Ethylbenzene		1.0	mg/kg	0.20	104	80	120			
2-Hexanone		10	mg/kg	4.0	101	70	130			
Iodomethane		1.0	mg/kg	0.20	100	70	130			
Methyl ethyl ketone		9.8	mg/kg	4.0	98	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill

Report Date: 08/05/11
Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Sample ID: CCV072511a										
53 Continuing Calibration Verification Standard										
Analytical Run: R72941										
07/25/11 10:08										
Methyl isobutyl ketone	10	mg/kg	4.0	102	70	130				
Methylene chloride	0.97	mg/kg	0.20	97	70	130				
Styrene	1.0	mg/kg	0.20	100	70	130				
1,1,1,2-Tetrachloroethane	1.0	mg/kg	0.20	103	70	130				
1,1,2,2-Tetrachloroethane	1.0	mg/kg	0.20	100	70	130				
Tetrachloroethene	1.1	mg/kg	0.20	106	70	130				
Toluene	1.0	mg/kg	0.20	101	80	120				
1,1,1-Trichloroethane	0.98	mg/kg	0.20	98	70	130				
1,1,2-Trichloroethane	1.1	mg/kg	0.20	110	70	130				
Trichloroethene	1.0	mg/kg	0.20	103	70	130				
Trichlorofluoromethane	1.0	mg/kg	0.20	104	70	130				
1,2,3-Trichloropropane	0.94	mg/kg	0.20	94	70	130				
Vinyl acetate	0.89	mg/kg	0.20	89	70	130				
Vinyl chloride	1.1	mg/kg	0.20	112	80	120				
m+p-Xylenes	2.0	mg/kg	0.20	102	70	130				
o-Xylene	1.0	mg/kg	0.20	104	70	130				
Xylenes, Total	3.1	mg/kg	0.20		70	130				
Surr: 1,2-Dichloroethane-d4			0.20	124	70	130				
Surr: Dibromofluoromethane			0.20	106	70	130				
Surr: p-Bromofluorobenzene			0.20	98	70	130				
Surr: Toluene-d8			0.20	105	70	130				
Method: SW8260B										
Sample ID: LCS072511A										
54 Laboratory Control Sample										
Run: 1SATURN_110726A										
Batch: R72941										
07/25/11 10:49										
Acetone	47.6	ug/L	20	95	70	130				
Acrylonitrile	50.0	ug/L	20	100	70	130				
Benzene	4.16	ug/L	1.0	83	70	130				
Bromochloromethane	4.24	ug/L	1.0	85	70	130				
Bromodichloromethane	5.04	ug/L	1.0	101	70	130				
Bromoform	4.72	ug/L	1.0	94	70	130				
Bromomethane	5.96	ug/L	1.0	119	70	130				
Carbon disulfide	6.12	ug/L	1.0	122	70	130				
Carbon tetrachloride	4.56	ug/L	1.0	91	70	130				
Chlorobenzene	4.60	ug/L	1.0	92	70	130				
Chlorodibromomethane	4.96	ug/L	1.0	99	70	130				
Chloroethane	6.48	ug/L	1.0	130	70	130				
Chloroform	4.28	ug/L	1.0	86	70	130				
Chloromethane	5.12	ug/L	1.0	102	70	130				
1,2-Dibromo-3-chloropropane	4.40	ug/L	1.0	88	70	130				
1,2-Dibromoethane	4.36	ug/L	1.0	87	70	130				
Dibromomethane	4.88	ug/L	1.0	98	70	130				
1,2-Dichlorobenzene	4.76	ug/L	1.0	95	70	130				
1,4-Dichlorobenzene	4.52	ug/L	1.0	90	70	130				
trans-1,4-Dichloro-2-butene	4.56	ug/L	1.0	91	70	130				

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc

Report Date: 08/05/11

Project: Sanitation Inc. Closed Landfill

Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Sample ID: LCS072511A										
54 Laboratory Control Sample										
Run: 1SATURN_110726A										
Batch: R72941										
07/25/11 10:49										
Dichlorodifluoromethane		4.72	ug/L	1.0	94	70	130			
1,1-Dichloroethane		4.64	ug/L	1.0	93	70	130			
1,2-Dichloroethane		5.16	ug/L	1.0	103	70	130			
1,1-Dichloroethene		4.48	ug/L	1.0	90	70	130			
cis-1,2-Dichloroethene		4.68	ug/L	1.0	94	70	130			
trans-1,2-Dichloroethene		4.40	ug/L	1.0	88	70	130			
1,2-Dichloropropane		4.92	ug/L	1.0	98	70	130			
cis-1,3-Dichloropropene		4.72	ug/L	1.0	94	70	130			
trans-1,3-Dichloropropene		4.96	ug/L	1.0	99	70	130			
Ethylbenzene		4.84	ug/L	1.0	97	70	130			
2-Hexanone		50.0	ug/L	20	100	70	130			
Iodomethane		4.20	ug/L	1.0	84	70	130			
Methyl ethyl ketone		48.0	ug/L	20	96	70	130			
Methyl isobutyl ketone		49.6	ug/L	20	99	70	130			
Methylene chloride		4.20	ug/L	1.0	84	70	130			
Styrene		4.72	ug/L	1.0	94	70	130			
1,1,1,2-Tetrachloroethane		4.64	ug/L	1.0	93	70	130			
1,1,2,2-Tetrachloroethane		4.92	ug/L	1.0	98	70	130			
Tetrachloroethene		5.08	ug/L	1.0	102	70	130			
Toluene		4.80	ug/L	1.0	96	70	130			
1,1,1-Trichloroethane		4.44	ug/L	1.0	89	70	130			
1,1,2-Trichloroethane		5.12	ug/L	1.0	102	70	130			
Trichloroethene		4.92	ug/L	1.0	98	70	130			
Trichlorofluoromethane		4.56	ug/L	1.0	91	70	130			
1,2,3-Trichloropropane		4.08	ug/L	1.0	82	70	130			
Vinyl acetate		4.04	ug/L	1.0	81	70	130			
Vinyl chloride		5.08	ug/L	1.0	102	70	130			
m+p-Xylenes		9.84	ug/L	1.0	98	70	130			
o-Xylene		4.80	ug/L	1.0	96	70	130			
Xylenes, Total		14.6	ug/L	1.0	98	70	130			
Surr: 1,2-Dichloroethane-d4				1.0	118	70	130			
Surr: Dibromofluoromethane				1.0	91	70	130			
Surr: p-Bromofluorobenzene				1.0	98	70	130			
Surr: Toluene-d8				1.0	104	70	130			
Sample ID: MB072511A										
54 Method Blank										
Run: 1SATURN_110726A										
07/25/11 12:04										
Acetone		ND	ug/L	20						
Acrylonitrile		ND	ug/L	20						
Benzene		ND	ug/L	0.50						
Bromochloromethane		ND	ug/L	0.50						
Bromodichloromethane		ND	ug/L	0.50						
Bromoform		ND	ug/L	0.50						
Bromomethane		ND	ug/L	0.50						
Carbon disulfide		ND	ug/L	0.50						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc
Project: Sanitation Inc. Closed Landfill

Report Date: 08/05/11
Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Sample ID: MB072511A										
54 Method Blank				Run: 1SATURN_110726A				Batch: R72941		
								07/25/11 12:04		
Carbon tetrachloride		ND	ug/L	0.50						
Chlorobenzene		ND	ug/L	0.50						
Chlorodibromomethane		ND	ug/L	0.50						
Chloroethane		ND	ug/L	0.50						
Chloroform		ND	ug/L	0.50						
Chloromethane		ND	ug/L	0.50						
1,2-Dibromo-3-chloropropane		ND	ug/L	0.50						
1,2-Dibromoethane		ND	ug/L	0.50						
Dibromomethane		ND	ug/L	0.50						
1,2-Dichlorobenzene		ND	ug/L	0.50						
1,4-Dichlorobenzene		ND	ug/L	0.50						
trans-1,4-Dichloro-2-butene		ND	ug/L	0.50						
Dichlorodifluoromethane		ND	ug/L	0.50						
1,1-Dichloroethane		ND	ug/L	0.50						
1,2-Dichloroethane		ND	ug/L	0.50						
1,1-Dichloroethene		ND	ug/L	0.50						
cis-1,2-Dichloroethene		ND	ug/L	0.50						
trans-1,2-Dichloroethene		ND	ug/L	0.50						
1,2-Dichloropropane		ND	ug/L	0.50						
cis-1,3-Dichloropropene		ND	ug/L	0.50						
trans-1,3-Dichloropropene		ND	ug/L	0.50						
Ethylbenzene		ND	ug/L	0.50						
2-Hexanone		ND	ug/L	20						
Iodomethane		ND	ug/L	0.50						
Methyl ethyl ketone		ND	ug/L	20						
Methyl isobutyl ketone		ND	ug/L	20						
Methylene chloride		ND	ug/L	0.50						
Styrene		ND	ug/L	0.50						
1,1,1,2-Tetrachloroethane		ND	ug/L	0.50						
1,1,2,2-Tetrachloroethane		ND	ug/L	0.50						
Tetrachloroethene		ND	ug/L	0.50						
Toluene		ND	ug/L	0.50						
1,1,1-Trichloroethane		ND	ug/L	0.50						
1,1,2-Trichloroethane		ND	ug/L	0.50						
Trichloroethene		ND	ug/L	0.50						
Trichlorofluoromethane		ND	ug/L	0.50						
1,2,3-Trichloropropane		ND	ug/L	0.50						
Vinyl acetate		ND	ug/L	0.50						
Vinyl chloride		ND	ug/L	0.50						
m+p-Xylenes		ND	ug/L	0.50						
o-Xylene		ND	ug/L	0.50						
Xylenes, Total		ND	ug/L	0.50						
Surr: 1,2-Dichloroethane-d4				1.0	115	70	130			
Surr: Dibromofluoromethane				1.0	91	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc

Report Date: 08/05/11

Project: Sanitation Inc. Closed Landfill

Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										
Sample ID: MB072511A 54 Method Blank										
						Run: 1SATURN_110726A				
Surr: p-Bromofluorobenzene				1.0	101	70	130			Batch: R72941
Surr: Toluene-d8				1.0	103	70	130			07/25/11 12:04
Sample ID: H11070317-001EMS 54 Sample Matrix Spike										
						Run: 1SATURN_110726A				
Acetone	101	ug/L	40	101	70	130				07/25/11 19:17
Acrylonitrile	94.4	ug/L	40	94	70	130				
Benzene	9.92	ug/L	2.0	99	70	130				
Bromochloromethane	9.04	ug/L	2.0	90	70	130				
Bromodichloromethane	10.1	ug/L	2.0	101	70	130				
Bromoform	9.68	ug/L	2.0	97	70	130				
Bromomethane	8.48	ug/L	2.0	85	70	130				
Carbon disulfide	10.2	ug/L	2.0	102	70	130				
Carbon tetrachloride	10.6	ug/L	2.0	106	70	130				
Chlorobenzene	9.76	ug/L	2.0	98	70	130				
Chlorodibromomethane	9.84	ug/L	2.0	98	70	130				
Chloroethane	9.44	ug/L	2.0	94	70	130				
Chloroform	9.12	ug/L	2.0	91	70	130				
Chloromethane	9.76	ug/L	2.0	98	70	130				
1,2-Dibromo-3-chloropropane	9.44	ug/L	2.0	94	70	130				
1,2-Dibromoethane	9.28	ug/L	2.0	93	70	130				
Dibromomethane	10.1	ug/L	2.0	101	70	130				
1,2-Dichlorobenzene	9.44	ug/L	2.0	94	70	130				
1,4-Dichlorobenzene	9.44	ug/L	2.0	94	70	130				
trans-1,4-Dichloro-2-butene	10.2	ug/L	2.0	102	70	130				
Dichlorodifluoromethane	9.68	ug/L	2.0	97	70	130				
1,1-Dichloroethane	10.2	ug/L	2.0	102	70	130				
1,2-Dichloroethane	10.3	ug/L	2.0	103	70	130				
1,1-Dichloroethene	10.2	ug/L	2.0	102	70	130				
cis-1,2-Dichloroethene	9.76	ug/L	2.0	98	70	130				
trans-1,2-Dichloroethene	9.44	ug/L	2.0	94	70	130				
1,2-Dichloropropane	10.7	ug/L	2.0	107	70	130				
cis-1,3-Dichloropropene	10.4	ug/L	2.0	104	70	130				
trans-1,3-Dichloropropene	10.2	ug/L	2.0	102	70	130				
Ethylbenzene	10.2	ug/L	2.0	102	70	130				
2-Hexanone	91.2	ug/L	40	91	70	130				
Iodomethane	9.68	ug/L	2.0	97	70	130				
Methyl ethyl ketone	88.8	ug/L	40	89	70	130				
Methyl isobutyl ketone	97.6	ug/L	40	98	70	130				
Methylene chloride	9.28	ug/L	2.0	93	70	130				
Styrene	9.76	ug/L	2.0	98	70	130				
1,1,1,2-Tetrachloroethane	9.92	ug/L	2.0	99	70	130				
1,1,2,2-Tetrachloroethane	10.4	ug/L	2.0	104	70	130				
Tetrachloroethene	10.2	ug/L	2.0	102	70	130				
Toluene	10.2	ug/L	2.0	102	70	130				

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc

Project: Sanitation Inc. Closed Landfill

Report Date: 08/05/11

Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R72941
Sample ID: H11070317-001EMS 54 Sample Matrix Spike										Run: 1SATURN_110726A 07/25/11 19:17
1,1,1-Trichloroethane		9.92	ug/L	2.0	99	70	130			
1,1,2-Trichloroethane		10.9	ug/L	2.0	109	70	130			
Trichloroethene		9.68	ug/L	2.0	97	70	130			
Trichlorofluoromethane		9.60	ug/L	2.0	96	70	130			
1,2,3-Trichloropropane		9.36	ug/L	2.0	94	70	130			
Vinyl acetate		8.72	ug/L	2.0	87	70	130			
Vinyl chloride		10.4	ug/L	2.0	104	70	130			
m+p-Xylenes		20.7	ug/L	2.0	104	70	130			
o-Xylene		10.0	ug/L	2.0	100	70	130			
Xylenes, Total		30.7	ug/L	2.0	102	70	130			
Surr: 1,2-Dichloroethane-d4				2.0	117	70	130			
Surr: Dibromofluoromethane				2.0	99	70	130			
Surr: p-Bromofluorobenzene				2.0	102	70	130			
Surr: Toluene-d8				2.0	104	70	130			
Sample ID: H11070317-001EMSD 54 Sample Matrix Spike Duplicate										Run: 1SATURN_110726A 07/25/11 19:48
Acetone		96.8	ug/L	40	97	70	130	4.0	20	
Acrylonitrile		94.4	ug/L	40	94	70	130	0.0	20	
Benzene		9.28	ug/L	2.0	93	70	130	6.7	20	
Bromochloromethane		8.64	ug/L	2.0	86	70	130	4.5	20	
Bromodichloromethane		10.2	ug/L	2.0	102	70	130	0.8	20	
Bromoform		9.04	ug/L	2.0	90	70	130	6.8	20	
Bromomethane		6.85	ug/L	2.0	68	70	130	21	20	SR
Carbon disulfide		9.44	ug/L	2.0	94	70	130	8.1	20	
Carbon tetrachloride		9.60	ug/L	2.0	96	70	130	10	20	
Chlorobenzene		9.84	ug/L	2.0	98	70	130	0.8	20	
Chlorodibromomethane		9.68	ug/L	2.0	97	70	130	1.6	20	
Chloroethane		8.96	ug/L	2.0	90	70	130	5.2	20	
Chloroform		8.64	ug/L	2.0	86	70	130	5.4	20	
Chloromethane		11.0	ug/L	2.0	110	70	130	12	20	
1,2-Dibromo-3-chloropropane		9.12	ug/L	2.0	91	70	130	3.4	20	
1,2-Dibromoethane		8.88	ug/L	2.0	89	70	130	4.4	20	
Dibromomethane		9.76	ug/L	2.0	98	70	130	3.2	20	
1,2-Dichlorobenzene		9.44	ug/L	2.0	94	70	130	0.0	20	
1,4-Dichlorobenzene		8.96	ug/L	2.0	90	70	130	5.2	20	
trans-1,4-Dichloro-2-butene		8.96	ug/L	2.0	90	70	130	13	20	
Dichlorodifluoromethane		8.96	ug/L	2.0	90	70	130	7.7	20	
1,1-Dichloroethane		9.28	ug/L	2.0	93	70	130	9.1	20	
1,2-Dichloroethane		10.7	ug/L	2.0	107	70	130	3.8	20	
1,1-Dichloroethene		8.96	ug/L	2.0	90	70	130	13	20	
cis-1,2-Dichloroethene		9.12	ug/L	2.0	91	70	130	6.8	20	
trans-1,2-Dichloroethene		8.48	ug/L	2.0	85	70	130	11	20	
1,2-Dichloropropane		10.4	ug/L	2.0	104	70	130	3.0	20	
cis-1,3-Dichloropropene		10.6	ug/L	2.0	106	70	130	1.5	20	

Qualifiers:

RL - Analyte reporting limit.

R - RPD exceeds advisory limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Sanitation Inc

Report Date: 08/05/11

Project: Sanitation Inc. Closed Landfill

Work Order: H11070319

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8260B										Batch: R72941
Sample ID: H11070317-001EMSD 54 Sample Matrix Spike Duplicate										Run: 1SATURN_110726A 07/25/11 19:48
trans-1,3-Dichloropropene		10.2	ug/L	2.0	102	70	130	0.0	20	
Ethylbenzene		10.2	ug/L	2.0	102	70	130	0.0	20	
2-Hexanone		107	ug/L	40	107	70	130	16	20	
Iodomethane		9.28	ug/L	2.0	93	70	130	4.2	20	
Methyl ethyl ketone		88.8	ug/L	40	89	70	130	0.0	20	
Methyl isobutyl ketone		99.2	ug/L	40	99	70	130	1.6	20	
Methylene chloride		9.36	ug/L	2.0	94	70	130	0.9	20	
Styrene		9.60	ug/L	2.0	96	70	130	1.7	20	
1,1,1,2-Tetrachloroethane		9.60	ug/L	2.0	96	70	130	3.3	20	
1,1,2,2-Tetrachloroethane		10.1	ug/L	2.0	101	70	130	3.1	20	
Tetrachloroethene		9.92	ug/L	2.0	99	70	130	2.4	20	
Toluene		10.1	ug/L	2.0	101	70	130	1.6	20	
1,1,1-Trichloroethane		8.88	ug/L	2.0	89	70	130	11	20	
1,1,2-Trichloroethane		11.3	ug/L	2.0	113	70	130	3.6	20	
Trichloroethene		10.0	ug/L	2.0	100	70	130	3.3	20	
Trichlorofluoromethane		9.36	ug/L	2.0	94	70	130	2.5	20	
1,2,3-Trichloropropane		10.3	ug/L	2.0	103	70	130	9.8	20	
Vinyl acetate		8.48	ug/L	2.0	85	70	130	2.8	20	
Vinyl chloride		9.52	ug/L	2.0	95	70	130	8.8	20	
m+p-Xylenes		20.2	ug/L	2.0	101	70	130	2.7	20	
o-Xylene		9.92	ug/L	2.0	99	70	130	0.8	20	
Xylenes, Total		30.1	ug/L	2.0	100	70	130	2.1	20	
Surr: 1,2-Dichloroethane-d4				2.0	115	70	130	0.0	20	
Surr: Dibromofluoromethane				2.0	96	70	130	0.0	20	
Surr: p-Bromofluorobenzene				2.0	96	70	130	0.0	20	
Surr: Toluene-d8				2.0	107	70	130	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Workorder Receipt Checklist



H11070319

Sanitation Inc

Login completed by: Tracy L. Lorash
Reviewed by: BL2000\ablackburn
Reviewed Date: 7/26/2011

Date Received: 7/21/2011

Received by: elm

Carrier Hand Del
name:

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature:	1.4°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☒	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☒	No ☐	Not Applicable ☐

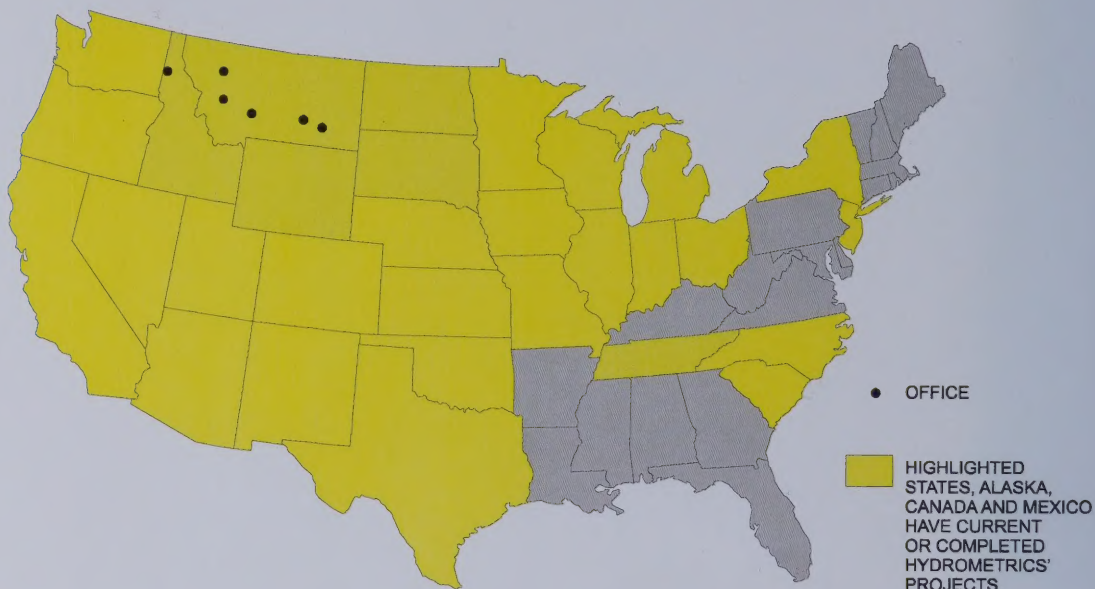
Contact and Corrective Action Comments:

Samples MW-4 and MW-4D both have one VOA vial with a bb size bubble in it. TI 7/21/11.

PLEASE PRINT (Provide as much information as possible.)

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Requested *Permit*



HYDROMETRICS, INC. OFFICES

MONTANA

HELENA (Corporate)
 3020 Bozeman Avenue
 Helena, MT 59601
Phone: (406) 443-4150
FAX: (406) 443-4155

BILLINGS
 5602 Hesper Road
 Billings, MT 59106
Phone: (406) 656-1172
FAX: (406) 656-8912

COLSTRIP
Phone: (406) 656-8305
Fax: (406) 656-8912

KALISPELL

300 Learn Lane
 Kalispell, MT 59901
Phone: (406) 552-4510
Fax: (406) 552-4706

MISSOULA
 667 East Beckwith
 Missoula, MT 59801
Phone: (406) 721-8243
FAX: (406) 542-2619

WHITEFISH
 14 West 2nd Street, Suite 2
 Whitefish, MT 59937
Phone: (406) 862-4937
Fax: (406) 862-4938

IDAHO

COEUR D'ALENE
 2736 White Pines Drive
 Coeur d'Alene, ID 83815
Phone: (208) 660-8548
Fax: (208) 765-5286